DOCUMENT RESUME

ED 127 277 SP 010 312

AUTHOR	Carini, Patricia F.
TITLE	Observation and Description: An Alternative Methodology for the Investigation of Human Phenomena.
INSTITUTION	North Dakota Study Group on Evaluation, Grand Forks.
SPONS AGENCY	Rockefeller Bros. Fund, New York, N.Y.
PUB DATE	Feb 75
NOTE	57p.
AVAILABLE FROM	Center for Teaching and Learning, University of North Dakota, Grand Forks, North Dakota 58201 ($2.00)
EDRS PRICE	MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS	Change Agents; *Change Strategies; *Conceptual Schemes; Educational Change; Educational Innovation; *Educational Philosophy; Educational Research; Educational Strategies; *Models; *Process Education; Program Development; *Systems Approach

ABSTRACT

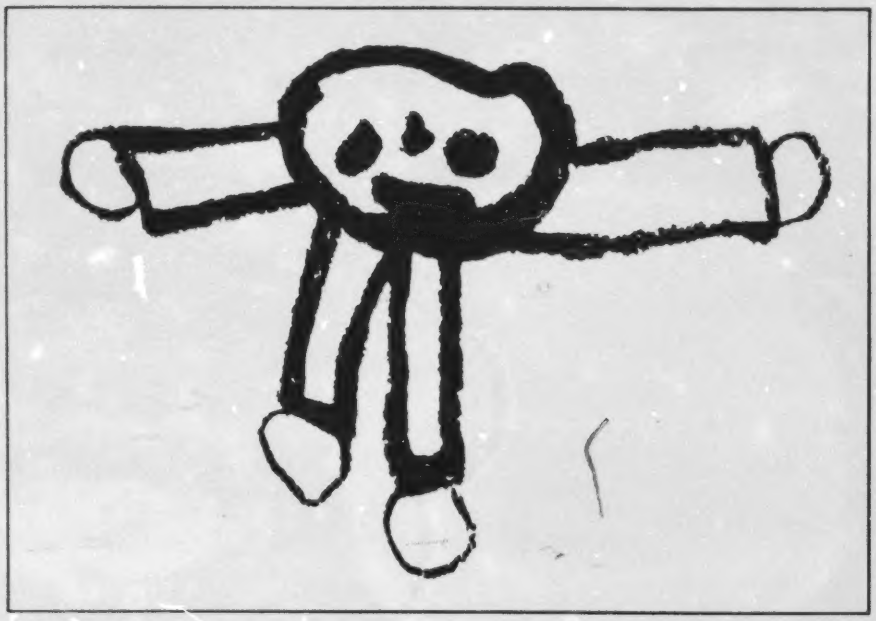
This monograph is one of a continuing series initiated to provide materials for teachers, parents, school administrators, and governmental decision-makers that might encourage reexamination of a range of evaluation issues and perspectives about schools and schooling. This monograph suggests a radical departure from the approaches to educational reform typical of the past two decades which represented programmatic changes reflective of specific models-- learning models; curriculum models; reading models; or program models. This essay contends that the model approach to school reform has inherent weaknesses and that the continued vitality and evolution of far reaching reform movements depend upon articulation of a methodology congruent with their philosophic orientation that will explicate and validate their undertakings. The essay contains five chapters and a bibliography: (1) A History and Critique of Models; (2) Two Forms of Inquiry: A Comparison of Method, Logic, and Description Charts; (3) Descriptive Research; (4) The Importance of the Philosophic Outlook; and (5) Reform and Change in Education: Implications of the Logical-Technological and the Phenomenological Orientations. (DMT)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

Patricia F. Carini

OBSERVATION AND DESCRIPTION: AN ALTERNATIVE METHODOLOGY FOR THE INVESTIGATION OF HUMAN PHENOMENA

North Dakota Study Group on Evaluation



Patricia F. Carini

OBSERVATION AND DESCRIPTION: AN ALTERNATIVE METHODOLOGY FOR THE INVESTIGATION OF HUMAN PHENOMENA

University of North Dakota
Grand Forks, N.D. 58202
February 1975

Copyright © 1975 by Patricia F. Carini

First published in 1975

North Dakota Study Group
on Evaluation, c/o Vito Perrone,
Center for Teaching & Learning
University of North Dakota
Grand Forks, N.D. 58201

Library of Congress Catalogue
Card Number: 75-275

Printed by University of
North Dakota Press

A grant from the Rockefeller Brothers Fund
makes possible publication of this series

Editor: Arthur Tobier

In November 1972, educators from several parts of the United States met at the University of North Dakota to discuss some common concerns about the narrow accountability ethos that had begun to dominate schools and to share what many believed to be more sensible means of both documenting and assessing children's learning. Subsequent meetings, much sharing of evaluation information, and financial and moral support from the Rockefeller Brothers Fund have all contributed to keeping together what is now called the North Dakota Study Group on Evaluation. A major goal of the Study Group, beyond support for individual participants and programs, is to provide materials for teachers, parents, school administrators and governmental decision-makers (within State Education Agencies and the U.S. Office of Education) that might encourage re-examination of a range of evaluation issues and perspectives about schools and schooling.

Towards this end, the Study Group has initiated a continuing series of monographs, of which this paper is one. Over time, the series will include material on, among other things, children's thinking, children's language, teacher support systems, inservice training, the school's relationship to the larger community. The intent is that these papers be taken not as final statements--a new ideology, but as working papers, written by people who are acting on, not just thinking about, these problems, whose implications need an active and considered response.

Vito Perrone, Dean
Center for Teaching & Learning,
University of North Dakota

Contents

1	A History and Critique of Models	1
2	Two Forms of Inquiry: A Comparison of Method, Logic and Description Charts (see next page)	7
3	Descriptive Research	39
4	The Importance of a Philosophic Outlook	42
5	Reform and Change in Education: Implications of the Logical-Technological and the Phenomenological Orientations	46
	Bibliography	49

CHARTS

Observing the Setting

1 Level 1: Physical Dimensions and Content of the Classroom 15

2 Level 2: Children's Choices of Activities as an Illustration of the Functional Organization of the Classroom 16

3 Level 3: Movement of Children Engaged in Activities Illustrates Aspects of the Coherence of the Space (Pace and Relatedness) 17

4 Level 4: The Durability (Persistence and Transformation) of Children's Relationships
5
6 18

Observing the Person

7 Level 1: An Example of a Child's Expression of Energy 23

8 Level 2: An Example of the Direction of the Expression of Energy with the Setting 24

9 Level 3: An Illustration of Description of Gestural Reciprocities (Coherence) 26

10 Level 4: An Example of Description of the Persistence and Transformation (Durability) of the Person's Engagement in Multiple Levels of the Setting--World, Others, Inner Being, Culture 27

11 Documentation of the Coherence and Durability of Relationships: Illustration of Complementarity and Divergence of Gesture Among Three Boys (Initial Matrix in a Projected Series of 24) 31

12 Documentation of Gradations of Resolution in Problem-Solving: Initial Matrix to Illustrate Task Complexity and Task Resolution 32

13 Documentation of the Dimensions of the Reading Process: Initial Matrix Based on Intensive Observation and Study of Two Children 33

14 Documentation of the Dimensions of the Reading Process: Reciprocal Relationships Among the Dimensions 34

15 Documentation of the Dimensions of the Reading Process: Revised Matrix (Two Children) 35

16 Descriptive Research: Provisional Scale of Problem-Solving Tasks Presents the Reciprocities of Task Task Demand, and Level of Resolution 37

17 Descriptive Research: Matrix of Tasks for Studying One Dimension of Reading (Decoding) 38

1

A History and Critique of Models

This essay suggests a radical departure from the approaches to educational reform typical of the past two decades. Virtually without exception, the reforms of school practice in the 1950s and 1960s represented programmatic changes reflective of specific models--learning models (e.g. Bereiter-Engelmann, Ausubel); curriculum models (e.g. ESS, MACOS, SRA); reading models (e.g. ITA, Gattegno, Structural Linguistics); or program models (e.g. Follow Through). Even the progressive movement lost much of its early impetus when, for instance, the underlying tenet of community was reinterpreted and schematized into a kind of social studies curriculum. The tendency is also present for the current movement towards informalized (open) education to rigidify programmatically around 'activity' or 'learning centers', 'learning conferences', 'the integrated day', 'open space'.

It is the thesis of this essay that the model approach to school reform has inherent weaknesses and, further, that the continued vitality and evolution of far-reaching reform movements such as the progressive movement and its latter day derivative, informal (open) education, depend upon the articulation of a methodology, congruent with their philosophic orientation, that will explicate and validate their undertaking.

At root, the pressure towards the dependence upon models, I hold, is a function of the technologizing of science. As a concept, 'models' permeate thinking in medicine, city planning, and social welfare as thoroughly as it permeates the thinking of educators. Historically, models were derivative from a scientific system and provide, *within the stated frame of reference of the particular scientific theory*, an abstracted schematization of a set of events or phenomena under investigation. The classical example would be Newton's theory of motion from which was derived a model of the universe. That model--but not the universe itself--is defined by the Newtonian laws of inertia and force, which as Frank says, "play the role of axioms" (1957, p. 107). Those laws are meaningless until they are specified according to a system (in this instance, the system of fixed stars); and observations derived from them, through the operational definition of their terms (e.g. acceleration; rectilinear motion), are true only within that specific system of reference. In other words, the Newtonian system describes

Patricia Carini is director of The Prospect School Adjunct Services, North Bennington, Vt.

not the phenomenal world, but a derivative of it, and that derivative is expressed as an abstracted mechanical model of the universe. Wittgenstein identifies the essentially abstract character of the scientific model when he states: "The fact that [the world] can be described by Newtonian mechanics asserts nothing about the world."*

In the course of the past 300 years, scientific inquiry and the powerful technology stemming from that inquiry have so increasingly formed the thought of Western man that it would not be extreme to say that, for many of us, only that form of inquiry and only those accounts ('explanations') of the world and of people derivative from that inquiry are considered valid. Science has become the standard for truth. Quite apart from the danger of dogma implied by this belief,‡ most of us in the Western world have become increasingly unguarded in our use of the elements of the scientific approach and have frequently employed those elements independently of theory--and therefore without the specification of a frame of reference from which to derive their meaning.

Thus 'models' constructed in the absence of a scientific theory are unlimited in their abstractness. That is, unlike 'models' derived through theoretical formulation, there is no limitation to the domain of inquiry as that is necessitated through "the stated frame of reference;" and no limitation of interpretation as that is necessitated through the axioms and operational definitions, which specify the meaning of the terms of the model** Rather, the phenomenon in question, whatever it may be and whatever its complexity--learning, affect, education, thought--is approached directly and its 'meaning' is explicated through an exhaustive logical inventory of its attributes. As logic, unguarded by theory, is bounded only by convention and the current character of thought, the 'model', thus constructed, is directly reflective of current belief about the phenomenon in question. And thus, rather than putting thought and formulation to the test of inquiry, it concretizes and formalizes an agreeable (according to common understanding) schematization of an event; the test of the 'model' being *not* its power to extend and to challenge thought and knowledge within a limited sphere--as scientific inquiry does in its use of models--but its power to produce useful knowledge and goods, and its power to confirm the current character of thought. Thus, the use of models independently of scientific theory, is both extremely conservative--extreme because it presumably exhausts the meaning of the phenomenon through logical definition and conservative because it confines thought about the phenomenon to the logical explication of current notions about it. Or to express the underlying conservatism of all logically constructed systems in Whitehead's terms: "All classification depends on the current character of importance" (1958, pp. 21-22).

In summary, in employing models in the absence of a scientific theory, we have lost sight of the fine but critical distinction of deriving a model from within a stated

*Cited in Frank, 1957, p. 107.

‡For a cogent discussion of science as dogma, the reader is referred to Alfred North Whitehead's critique in *Modes of Thought*; it is also the source of the notion of "unguardedness" as that idea is used in this essay. "It is to be noticed that none of these logical or scientific myths is wrong, in an unqualified sense of that term. It is unguarded, its truth is limited by unexpressed presuppositions; and as time goes on we discover some of these limitations" (pp. 14-15).

**For a critique of a specific model, the reader is referred to Louis Carini's article, "The Aristotelian Basis of Hull's Behavior Theory," *Journal of the History of the Behavioral Sciences*, Vol. IV, No. 2, 109-118, April 1968.

frame of reference which, through its axioms and operational definitions, establishes the meaning--and the limits of meaning--of the model; instead a practice has evolved of constructing a model through an exhaustion of logical definitions. In either instance, models are abstractions from the event itself, but in the one instance that abstraction is recognized in its relationship to a theoretical formulation, while in the other the logical possibilities are confused with the meaning of the phenomenon itself.

Inasmuch as we have neither a science of education nor of the person, nor of society, models employed within education have had to be logical abstractions which are external to the phenomena they are meant to address. As such they have produced some 'useful knowledge', as technologies always do, largely in the form of material benefits--such as listening laboratories, teaching machines, sequentialized learning kits. However, these models have also tended to fragment, to restrict, and to over-specify the educational process, as well as to build an ever-increasing dependency of schools and educators upon outside agencies and outside expertise.

THE FRAGMENTATION OF THE EDUCATIONAL PROCESS

Logic, as a method of inquiry, depends upon the abstraction and isolation of phenomena through the predication of attributes, and the ordering and classifying of them. Education approached logically, and in the absence of a science of education, can be readily broken into hierarchical subsystems, both in its institutional statement--the school--and in its educational function. Further, within the scientific aura of our times, education has been perforce a handmaiden to a number of delimited and abstracted scientific theories related (presumably) to its educational function, such as learning theories, behavior theories, and perceptual theories, which in their effort to be scientific have been forced to reduce drastically the phenomena they can encompass. The application of 'findings' from these scientific subsystems has further fragmented the educational process and brought an increasing dependence of schools on outside expertise.

In practice, in one instance, logical models have broken the curriculum into subject matter specialities according to current standards of knowledge, and further, have broken the schools into clusters of curriculum specialists under an administrative hierarchy that is analogous to the organization of a bureaucracy. In other instances, logical models have analyzed human feeling into a taxonomy of affective behaviors and applied those to the measurement of a child's emotional development; or a model has been devised to delineate the steps in learning to read according to a logically defined phonetic system, derived from a theory of linguistics. While examples such as these could be multiplied almost without end, all of

these technological models employ measurable efficiency and a final product as the standards of success. Equally they all tend to emphasize a given facet of a total process independently of its meaning to the totality of the process or of its meaning in relationship to other parts of the process. A single quotation from the formulators of a learning program for deprived children serves to illustrate the tendency towards isolation and abstraction characteristic of technological models. In defining their learning program, Bereiter and Engelmann make the following statement:

> To avoid falling into magical thinking on this matter, it is best to avoid such ambiguous terms as 'development' and 'intelligence' and to consider the whole matter in terms of learning...it is more to the point to say that there are a number of things that disadvantaged children of preschool age have not learned...The problem of achieving a faster than normal rate of progress becomes the problem of producing *learning* at a greater than normal rate" (1966, p. 8).

It hardly needs to be stated that the reduction of education to 'rate of learning' means that attention is diverted from all of those other facets of the educational process such as thinking, social development, language development, expressiveness, and problem-solving. Indeed, the fact that educational models so quickly supplant each other is testimony to the inherent limitations of models in terms of scope and depth; this year's emphasis on a 'learning contracts' model quickly gives way to a 'behavior modification' model, and either can be replaced by a 'sequentialized learning' model.

Concomitant to the fragmentation of the educational process is a technological specialization which, in practice, means that each new model adopted by a school must be interpreted and put into practice by outside consultants. Thus schools find themselves the recipients of a range of external expertise which, proportionate to the number of models in use, almost inevitably will result in intellectual and practical incompatibilities among the experts--leaving the practitioners in a further state of fragmentation. The dependence on outside agencies for changing educational practice also identifies change or reform as external to the school and the particular community of interest it represents. There is a tacit assumption that the 'model' can be applied everywhere, and in effect that the schools themselves are virtually interchangeable as 'constant factors'. Indeed the Office of Education has tended to evaluate models seeking federal funding and support according to their 'transferability' or 'generalizability' from one locale to another. Thus, concomitant with the restriction and fragmentation of the educational process through models, there is also an implicit tendency towards uniformity.

ALTERNATIVES TO MODELS

Given the current state of affairs, and the ease with which technology can continually supply external and isolated solutions to alleviate the crushing pressures to which education is subjected, what alternatives are available? Especially what alternatives are available if, in the common parlance, those alternatives must demonstrate their 'accountability'?

First, it must be accepted that to consider alternatives will require a major reorientation of thought. If we do not have a *science* of education then how can we consider the process intelligently? That is, how can we *inquire* into the process to inform ourselves about it so that we can evolve an ever more responsive and responsible process, and potentially--should that seem desirable--a scientific theory of education?

A long tradition in Western thought holds that before it is possible, let alone desirable, to abstract and isolate the elements of a phenomenon according to the principles of logic, we must first conduct an inquiry that brings us closer to the phenomenon--if you will, *into* the phenomenon--in all its complexity. Exponents of this phenomenological position include among philosophers Heidegger, Merleau-Ponty, Barfield, Hegel, and Husserl; among naturalists Goethe, Von Uexkull, Tinbergen, Eisely, and Lorenz; and among psychologists and anthropologists Jung, Levi-Strauss, Werner, and Froebel. Jung expresses the phenomenological attitude when he says:

> Dominating my interests and research was the burning question: 'what actually takes place inside the mentally ill?' That was something which I did not understand then, nor had any of my colleagues concerned themselves with such problems. Psychiatry was not interested in what the patient had to say, but rather in how to make a diagnosis or to describe symptoms and to compile statistics. From the clinical point of view which then prevailed, the human personality of the patient, his individuality, did not matter at all. Rather, the doctor was confronted with Patient X, with a long list of cut-and-dried diagnoses and a detailing of symptoms. Patients were labeled, rubber-stamped with a diagnosis, and for the most part that settled the matter (1963, p. 114).

Persons brought up in a dominantly logical-technological tradition, however, have found it difficult to comprehend the meaning of the descriptive material yielded by phenomenological inquiry.* The basic phenomenological process of immersion in direct observation of a small number of cases over extended periods of time within their natural setting goes against the grain of persons accustomed to conceiving of research in terms of empirical data, gathered objectively (i.e. independently of any given ob-

*See also Patton, M.Q., *Alternative Evaluation Research Paradigm*, in this series.

server and any given setting), and thus available to normative statistical treatment and replication. On the other hand, with greater or lesser degrees of awareness, it is generally recognized that virtually all the major breakthroughs in thought have occurred *not* from exhaustive, empirical studies replicated on large and carefully stratified samples, but from intensive observation and reflection upon a few cases. Freud, Kepler, Wallace, Jung come immediately to mind along with Giordano Bruno, Newton, Galileo and Copernicus. While there is a certain ease with which one can dismiss these instances--or any breakthrough in thought--as rare and special cases, 'acts of genius', it is worthy of some consideration that just as logic does not exhaust thought, intensive description as a form of inquiry also yields significant data.

A more far-reaching difficulty in gaining understanding and acceptance of the value of phenomenological inquiry is that the *method* of that inquiry has not been easily available, partly because of the overwhelming dominance of the logical-technological method, and partly because phenomenological inquiry has largely been articulated in philosophical and even literary terms rather than in practice. Therefore, in suggesting a phenomenological descriptive inquiry as an alternative to logical inquiry, this paper accepts the necessity of articulating the *method* of that inquiry in comparison with the more dominant logical method of science. The paper also accepts the responsibility to demonstrate how--in education (or in other humane professions)--the incorporation of a descriptive method can provide a vehicle for school reform and evolution that is truer to the internal, organic process of that school and, therefore, is more flexible and comprehensive in practice than the utilization of abstracted models.

2

Two Forms of Inquiry: A Comparison of Method, Logic and Description

There are two levels at which the comparison that follows has potential importance. That is, the delineation of a descriptive inquiry contraposed to logical inquiry may have at one level significance for scientific formulation, and at another level may constitute an important form of inquiry in its own right.

If we are correct in our critique of the proliferation of models as a function of indiscriminate application of logic, independent of a scientific frame of reference, then the identification of an inquiry that can lead to scientific formulation has significance. In other words, with regard to the abstracted use of models we may simply have put the cart before the horse. Merleau-Ponty suggests that this is in fact what happened in psychology, through its premature reduction of psychology into elementary subsystems, thus retarding the growth of psychology as a science:

> By treating what is merely the periphery of psychology as its core (as if the psychology of elementary functions was bound to yield that 'psychology of the whole' simply by the accumulation of research in special areas); by allowing the sensory functions and their laws to retain an undeserved privilege because they are more or less suited to quantitative treatment; by thus concentrating the efforts of the new psychology on the 'functional' and the 'objective' when it had sought to discover all that is 'descriptive' and 'phenomenal'...by doing these things scientism retarded the growth of a psychological science (1962, p. 86).

Furthermore, it may be that descriptive data has a meaning and form peculiar to itself that is not appropriately framed through predication and analysis within scientific theory, but which is nonetheless shareable and generalizable. Thus, Barfield identifies that Goethe's

> method differs from the ordinary method of induction in that the observer, when he reaches a certain point (the 'prime phenomenon') stops there and endeavors to sink himself in contemplation *in* that phenomenon rather than to form further thoughts *about* it...it was by this method that (Goethe) discovered the prin-

ciple that all parts of a plant can be regarded as metamorphoses of the leaf....(1966, p. 34).

When the comparison of methods of inquiry has been undertaken and certain conclusions for education drawn from that comparison, it may be revealing and rewarding to consider further these two potentialities of a phenomenological inquiry.

I have framed the comparison of logic and phenomenological description around the following ideas:

- the conceptualization of the Character of the Observer;
- the Assumed Relationship of the Observer to the Phenomenon;
- the Essential Nature of the Phenomenon;
- the Function of the Inquiry and the Knowledge to be Derived from the Inquiry;
- the Methods of Inquiry.

For purposes of clarity I will consider each issue in turn, juxtaposing the stance of each of the forms of inquiry on these separate issues before attempting a fuller comparison or to draw conclusions.

THE CHARACTER OF THE OBSERVER

The figure of the observer is central to any form of inquiry, since it is inevitably through an observer that a datum must be represented. In an age of computers, that figure often is virtually lost from view through the distance created by his tools of inquiry and measurement; however, it is, of course, only an apparent distance since the observer himself chooses his tools of observation and measurement. It is also true that within scientific inquiry, the observer is largely assumed to be a constant factor--held constant by the formal requirements of his inquiry. Any given observer, therefore, is presumed interchangeable with any other observer, and within the experimental sciences, he is generally referred to impersonally as *O.* (observer) or *E.* (experimenter), just as the phenomena under inquiry are referred to as "cases" or *S*s (subjects). The underlying assumption about the observer in logical, scientific inquiry* is that the very requirements of his inquiry render him 'objective', and thus the peculiar character of his own thought and being is vitiated.

If we turn to phenomenological inquiry, however, quite another observer is pictured. Here the observer, as a point of view, is central to the datum and it is in the articulation--in the revelation of his point of view--that the datum of inquiry is assumed to emerge. In effect the observer is here construed as one moment of the datum and as such the fabric of his thought is inextricably woven into the datum as he is assumed to be consti-

*There needs to be acknowledged that among some theoretical physicists and philosophers of science there is both consideration of, and concern about, the observer's necessary participation in the datum. A particularly lucid discussion of this point can be found in *Physics and Philosophy, The Revolution in Modern Science* (New York: Harper and Brothers, 1958) by Werner Heisenberg.

tuent of its meaning. From this assumption it is possible to consider the relationship of the observer to the phenomena under inquiry.

THE RELATIONSHIP OF THE OBSERVER TO THE PHENOMENON

Relatedness can be stated in many ways: opposition, identity, proximity, interpenetration, isolation, to name only a few. All imply that the way in which a person construes his relationship to the phenomenal world is a function of his *point of view* about it. That is, relationship is not a given nor an absolute, but depends upon a personal perspective. It is also true that perspective can shift, the only necessity of a person's humanity being that he take some stance in relationship to the events about him.

Whereas in phenomenology and descriptive inquiry the perspective is a fundamental *unity* between the observer and the phenomenal world, in the natural sciences and logical inquiry the perspective is the *separation* of the observer from the phenomenal world. By assuming a stance *over and against* the world, the observer's focus is predicative, he means to describe the phenomenon in terms of its object properties, i.e. objectively and analytically. Or as Barfield states it, "[Natural Science] assumed a world consisting of 'Nature' as a process going on by itself, a kind of machine, strictly governed by the laws of mechanical causality, and set over against this, the observing mind of man....On the one side you had nature and on the other side--man" (1966, p. 185).

By assuming participation within the world, the observer's focus moves towards the integrity of the phenomenon as that is revealed, or unconcealed, through his own participation in the phenomenon. Or as Merleau-Ponty states it:

> ...the thing is correlative to my body and, in more general terms, to my existence, of which my body is merely the stabilized structure. It is constituted in the hold my body takes upon it; it is not first of all a meaning for the understanding, but a structure accessible to inspection by the body....However, we have not exhausted the meaning of 'the thing' by defining it as the correlative of our body and our life. After all, we grasp the unity of our body only in that of the thing, and it is by taking things as our starting point that our hand, eyes and all our sense organs appear to us as so many interchangeable instruments. The body by itself, the body at rest, is merely an obscure mass, and we perceive it as a precise and identifiable being when it moves towards a thing, and insofar as it is intentionally projected outwards...(1962, pp. 320-322).

The relationship in which the observer is placed

vis a vis the phenomenon, now specifies and elaborates his character. In science and logical inquiry the observer is, as Barfield says, "*an observing mind*", and the mind is further defined by the logical analyses it carries out in its investigation of the external phenomenon. The mind is isolated and depersonalized just as the phenomenon is isolated and abstracted. And it is in this way that a community of observers is established, who, as "observing minds", are interchangeable because of their collective implementation of the logical inquiry.

On the other hand, the observer in descriptive inquiry is a body, an experiential setting, plastic and expressive, which both shapes and is shaped by the other moments of the phenomenal world--and the meaning of each, the observer and the phenomenon, is revealed through the other. In proportion to the depth of his immersion in the phenomenon, the body, the observer, is thus an increasingly articulated expressor of meaning. The multiplicity of phenomenal meanings established through and by the participation of one observer over time, or through the participation of many observers, constitutes a community of collectively shareable meanings.

THE NATURE OF THE PHENOMENON

For logic as compared with phenomenology the assumed nature of the phenomenon is prefigured in the difference of perspective assumed in the relationship of the observer to the phenomenon in the two positions. The phenomenon, as an object separate and apart from the observer, is assumed to be knowable, i.e. objectifiable, through the predication, analysis, and summation of its parts. In those terms, it has one unchanging meaning and is, therefore, objectively knowable by all observers through its exhaustive predication. Through the observer's encounter with the phenomenon from a singular point of view and in the abstraction of the phenomenon from its dynamic setting, the phenomenon is specified as its most reduced form, i.e. through the hierarchical subsumption of its predicated object attributes.

The phenomenon as it is participated in by the observer in the constitution of a shared meaning is assumed to be thinkable but inexhaustible, and therefore, fundamentally ambiguous. Its multiple meanings emerge from its continuing transformation through the changing point of view, the thought, of the observer. "For all true thought", says Heidegger, "remains open to more than one interpretation--and this by reason of its nature. Nor is this multiplicity of possible interpretations merely the residue of a still unachieved formal-logical univocity which we properly ought to strive for but did not attain. Rather multiplicity of meaning is the element in which all thought must move in order to be true thought" (1968, p. 71). In the ongoing encounter with the phenomenon over time, and within the setting constituted by the two mo-

ments through which meaning is expressed--the observer and the phenomenon--the phenomenon and the observer are presented in their most elaborated forms, i.e. through the internal complexity of thought (interpretations) of the observer.

Where logic 'exhausts' the meaning of the object through the completion of the predicative process and the mathematical formulation of the phenomenon, phenomenological inquiry increasingly thickens the meaning of the phenomenon as it reveals the multiplicity of internal reciprocities that constitute the phenomenon's integrity.

THE FUNCTION OF THE INQUIRY AND THE KNOWLEDGE DERIVED FROM IT

Although presented here as an introductory statement for reasons of clarity, the constellation of observer, phenomenon, and the relationship between them, is determined in fact by the function of the inquiry--that is, by what we seek in undertaking the inquiry. Logic seeks the organization of knowledge: to predicate the attributes of the phenomenon through logical opposition in order to define and classify it; to place the phenomenon in a chain of causal events in order to control and to predict it; and to subsume it within a classificatory system in order to specify its formal mathematical relationship to other phenomena.

Description, on the other hand, seeks the increased meaning or unconcealment of the phenomenon or, to use Goethe's phrase, the phenomenon as "prime phenomenon". Or to phrase it yet another way, the inquiry seeks *not* the properties of the phenomenon but the phenomenon itself. It seeks, therefore, to reveal the phenomenon in the following expressions of its meaning*:

1. The *coherence* of the phenomenon--i.e. the polar reciprocities that together constitute the unities from which their own interpenetratedness derives. Birth and death are not opposites but reciprocal moments in life--the span, the process that states and restates both in ultimate unity and elaboration. Or, dependence and independence are not opposites but reciprocal moments of relatedness.
2. The *durability* of the phenomenon--i.e. the persistence and transformation of its coherent expression (i.e. its polar reciprocities) through time and settings.
3. The *integrity* of the phenomenon--i.e. the recurrent patterns of polar reciprocities that taken together over time reveal the unity of the phenomenon.

Where analysis through logical opposition leads to the prediction and control of phenomena and, therefore, to useful (technical) knowledge, description through polar reciprocities leads to the understanding of the phenomenon

*We are indebted in our conceptualization of the phenomenon to Leonard Felstein's thought-providing article "Reflections on the Ontology of the Person," *International Philosophical Quarterly*, New York: Fordham University, [illegible]70.

and therefore to insight into new totalities for inquiry.

In summary, the difference in attitude between the two inquiries and the kind of knowledge to which they lead has been eloquently expressed by Barfield in his illustration of this difference:

> If we are present at a church service, where a censer is swinging, we may either attend to the whole representation, or we may select for attention the actual movement to and fro of the censer. In the latter case, if we are a Galileo, we may discover the law of the pendulum. It is a good thing to discover the law of the pendulum. It is not such a good thing to lose for that reason, all interest in, *and ultimately even perception of*, the incense whose savour it was the whole purpose of the pendulum to release (1957, p. 81).

THE METHOD OF INQUIRY

It remains now to specify the processes through which the respective methods of inquiry are implemented. In theoretical terms, certain critical differences can be identified between the two processes in the functions served by observation, by the recording of observations, by the organization of observations, and by research. In logical inquiry, the function of observation is to predicate the properties of a phenomenon, while the function of recording is to objectify (numeralize) the properties. In order to organize the observations, experimental investigation is undertaken to analyze the causal relationships among the properties of the phenomenon. These investigations, in turn, are ultimately systematized by a program of research which, through an exhaustive variation of factors under controlled conditions, explains the phenomenon.

By contrast, the function of observing in phenomenological inquiry is to constitute the multiple meanings of the phenomenon, while the function of recording the phenomenon is to reflect those meanings for the contemplation of the observer. In order to organize the observations, they are juxtaposed to each other in documentary form--revealing the patterns of reciprocities that constitute the coherence and durability of the meanings of the phenomenon. These emergent patterns of reciprocities, in turn, are employed systematically in a program of refined and delimited observing to verify the limits of the available meanings of a phenomenon and to reconstitute the phenomenon as a unit of inquiry.

In practice, observation and recording within logical, scientific inquiry are virtually always subordinated to experimental investigation. That is, the analytic process precedes the observation through isolating and abstracting the phenomenon so that it can be observed under controlled conditions (i.e. in the laboratory); by subdividing the phenomenon into subsystems for convenience of

analysis, and by designating a system of definitions--a recording format or code--to render the observations objectively available to measurement and replication. Thus, in their conceptualizations of observing, and the organization and system of observation, the philosophical and substantive differences already noted between the two methods of inquiry are compounded by a profound difference in the way in which the inquiries are implemented. While the one implementation is linear, with time held constant, the other is cyclical with time the determining factor.

Since the experimental methodology is generally well understood and the literature in nearly every field of inquiry* is replete with its implementations, illustrating its use through further examples here would be redundant. On the other hand, since methods of phenomenological inquiry are virtually without concrete representation of their implementation in the literature, the remainder of this discussion will be devoted to illustrating that implementation. It should be noted that the implementation of descriptive inquiry elaborated here has been carried out by the author and others at The Prospect School over the past nine years. Examples and charts presented here are all drawn from the observations, records, documents, and research collected and compiled within that setting.

Observing.

In phenomenological inquiry, whether the object of inquiry is a child or a chimpanzee or a cattle tick or a plant, the observation must occur within a setting and through time. Thus the first task of the observer is to grasp the setting as it exists from his own point of view and as it is constituted through the phenomenon. This notion of setting as a perceptual universe reflective of and varying according to the structures of the participants within it was formulated by Von Uexkull as the *umwelt* to distinguish it from geographical space and linear time. Thus, for example, as Werner describes it, the seashore is a different setting for a child at different ages, according to its changing availability through his body:

> The Scupin boy at the age of eight no longer recognizes the sea which he knew at the age of four. At that time the sea was determined by different things-of-action. Such small objects as mussels and little stones, butterflies, and the wet sand ready to be molded into simple forms--these made up the world of the seashore for the four-year-old, whereas the eight-year-old conceives this same region as an arena for sports and swimming, and no doubt thinks of the tremendous flat space of the water as an invitation to adventure (1948, p. 383).

Taken from another vantage point, the seashore is a different setting from the points of view of an artist, a painter, or a fisherman as assuredly, if more subtly, as it is different for a fish, a seagull, and a dog.

*Scientific American is a readily available source of investigations that exemplify this methodology.

As has already been noted, the observer in phenomenological inquiry is assumed to be participant (through his body) in, and constituent of, the meanings of the datum, while the phenomenon under observation is assumed to be inexhaustible in its meanings. In practice, therefore, the observer is seeking the multiple meanings of the phenomenon as these are available to him through their expression within the *umwelt* that is constituted through his own point of view and that of the other. Or as Merleau-Ponty describes it in his effort to grasp the thought of a mad man:

> ...it is not a question either of taking him at his word, or reducing his experiences to mine, or coinciding with him, or sticking to my own point of view, but of making explicit my experience and also his experience as it is conveyed to me in my own, and his hallucinatory belief and my real belief, and to understand the one through the other (1962, p. 338).

The stages in observing, then, can be described as follows: 1) the observer's immersion in the setting of the other through his own body in order to grasp its realms of meaning for him; 2) the observer's immersion in the setting through the other's participation in the setting in order to grasp the setting's realms of meaning for him. Immersion implies both time and levels, and the carrying through of observing entwines the two in articulating both moments of the universe of observation--the observer and the other. Thus, if the setting is a school room, and the inquiry is directed towards understanding children of a certain age, the first focus of observing is to incorporate the structures and potentialities of the setting at the following levels: first, at the level of its physical dimensions and content; second, at the level of its functional organizations; third, at the level of its coherence, i.e. through the rhythm of its reciprocities such as activity--inactivity (pace), sound--silence (tone), and isolation--communality (relatedness); and fourth, at the level of its durability, that is through the persistence and transformation of the underlying reciprocities over time. In concrete form, examples of these levels of observation are presented in Charts 1-6.

As the observer increasingly incorporates the school room--*not* generically as *a* schoolroom, but as this particular schoolroom--in all of its vividness and intensity, the focus of observation can be turned to observing the children themselves, that is, to describing their engagement within the setting, and thus in turn elaborating the meanings of the setting itself as it now appears through their participation. The child's meaning, like the observer's own, is expressed through the general gestural character of his body as those gestures reciprocate each other, as they are enhanced or modified through variations of the settings, as they endure and are transformed through time, i.e. as they state the unity of his being.

(cont. on p.21)

The following charts (1 through 6) are examples of four levels of observation within the classroom setting.

CHART 1

Level 1 in Observing the Setting: Physical Dimensions and Content of the Classroom

BLOCK ROOM

Big Blocks
Table Blocks
Pattern Blocks, etc.

FRONT AREA

Collage Materials
Paints
Cooking
Wax
Clay

CORRIDOR

Aquarium
Bulbs, Batteries, etc.
Crayons, Scissors
Glue
Scrap wood
Fabric

RUG ROOM

Sewing
Games
Math Equipment
Books
Guinea Pig

PORCH

Planting Materials
Greenhouse
Wood

BACK AREA

Books
Blocks

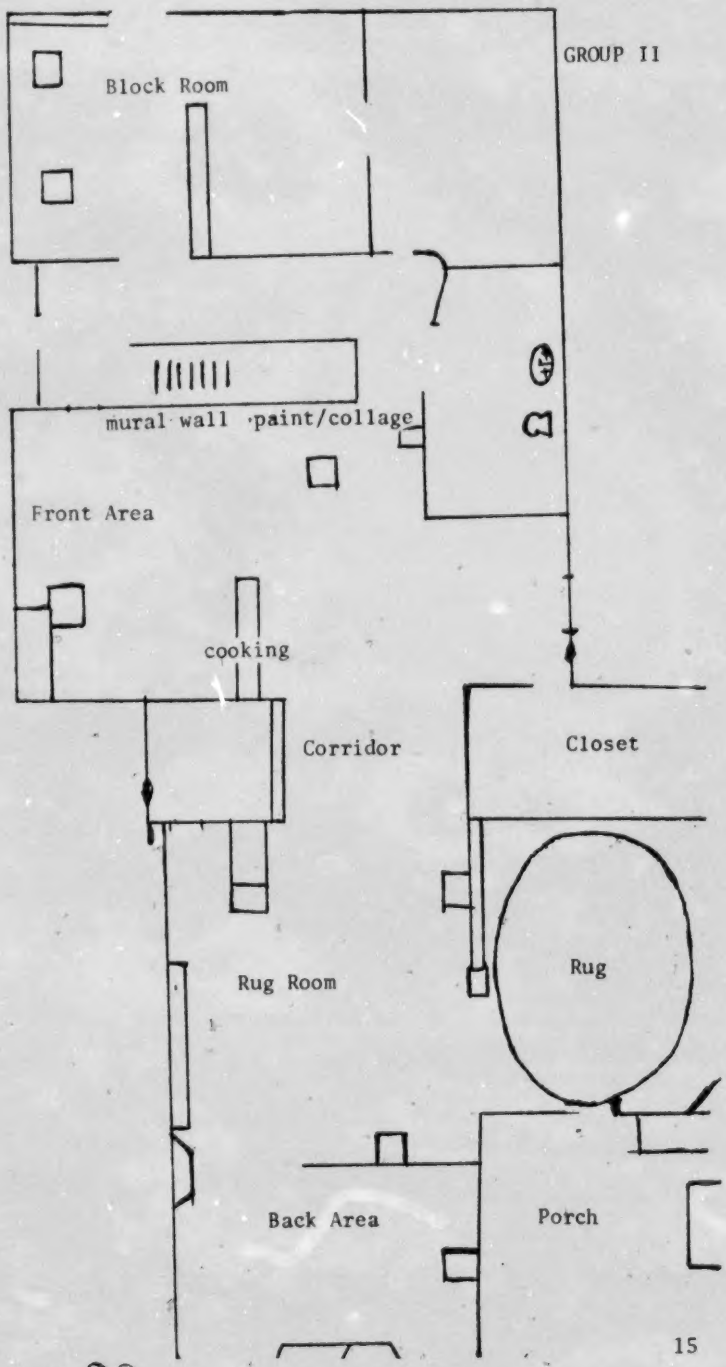


CHART 2

Level 2 in Observing the Setting: Children's Choices of Activities as an illustration of the Functional Organization of the Classroom

September 10, 1973

GROUP II

Meeting: Things to Do

Collage
Walk
Planting
Painting Mural
Clay
Wax
& usual blocks
paper
reading

Deborah - reading alone - table by the fireplace

Luke, Orland → drawing - back area

Loretta, Amity, Phoebe → wax - table by hot plate

Arthur, Adam → blocks - block room

Bess, Rosaline → Collage - table by wax

Garth — looking at books on rug

Eliot, Zeke, Winslow → out for walk

Claire, Carly → Mural - mural wall

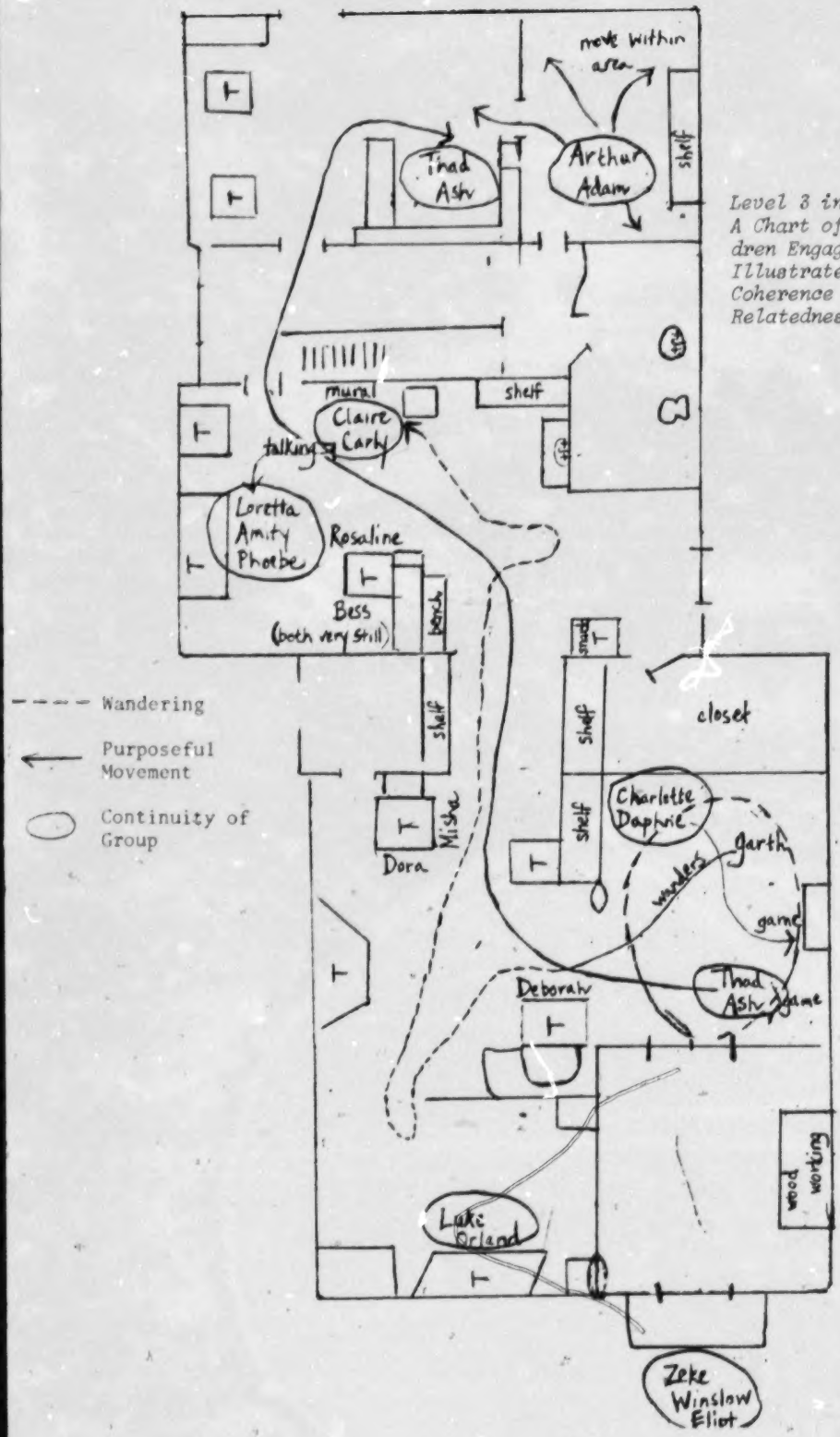
Daphne, Charlotte → Finger weaving - rug

Thad, Ash → Tuf (a game) - rug

Misha, Dora → Drawing - table by guinea pig

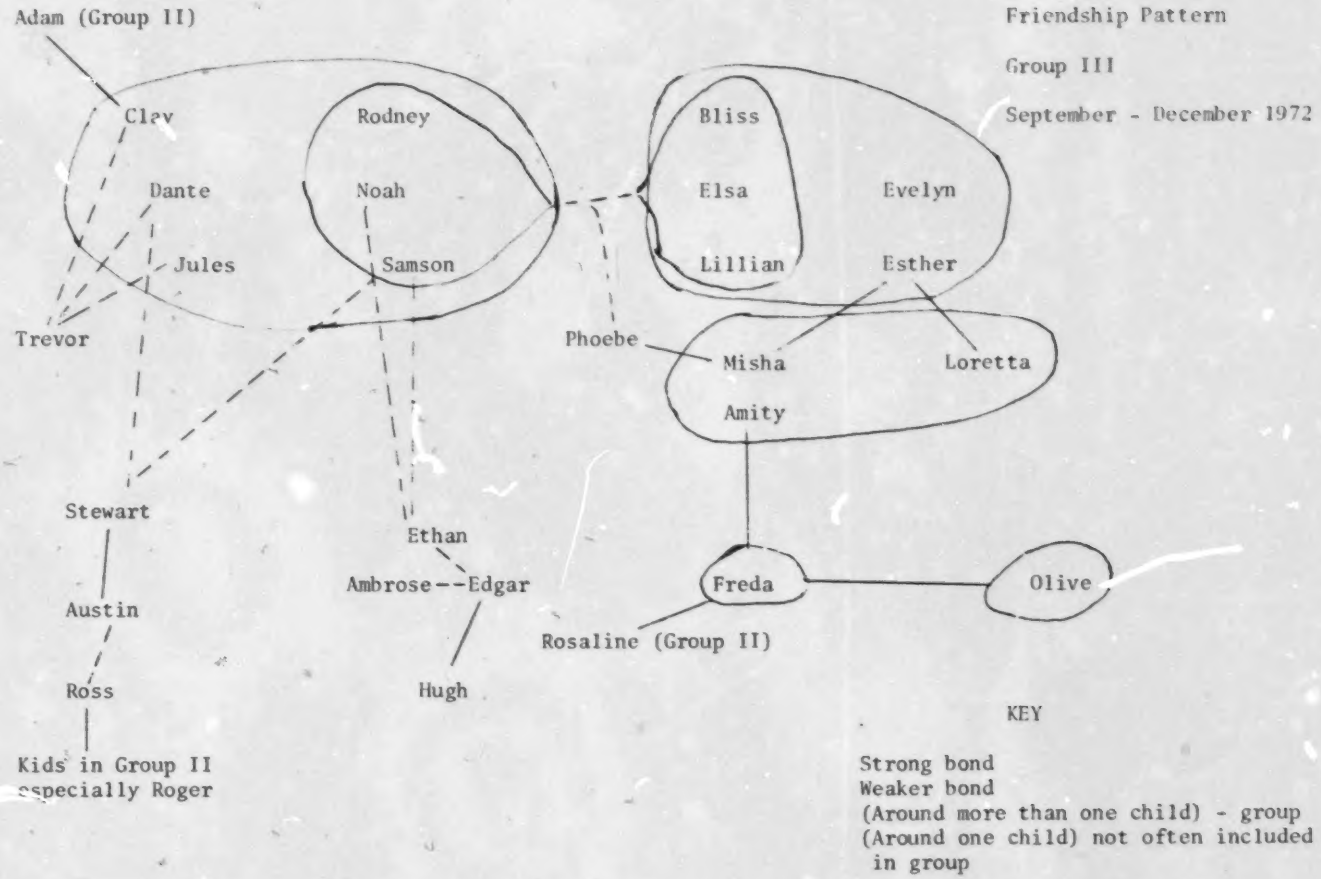
CHART 3

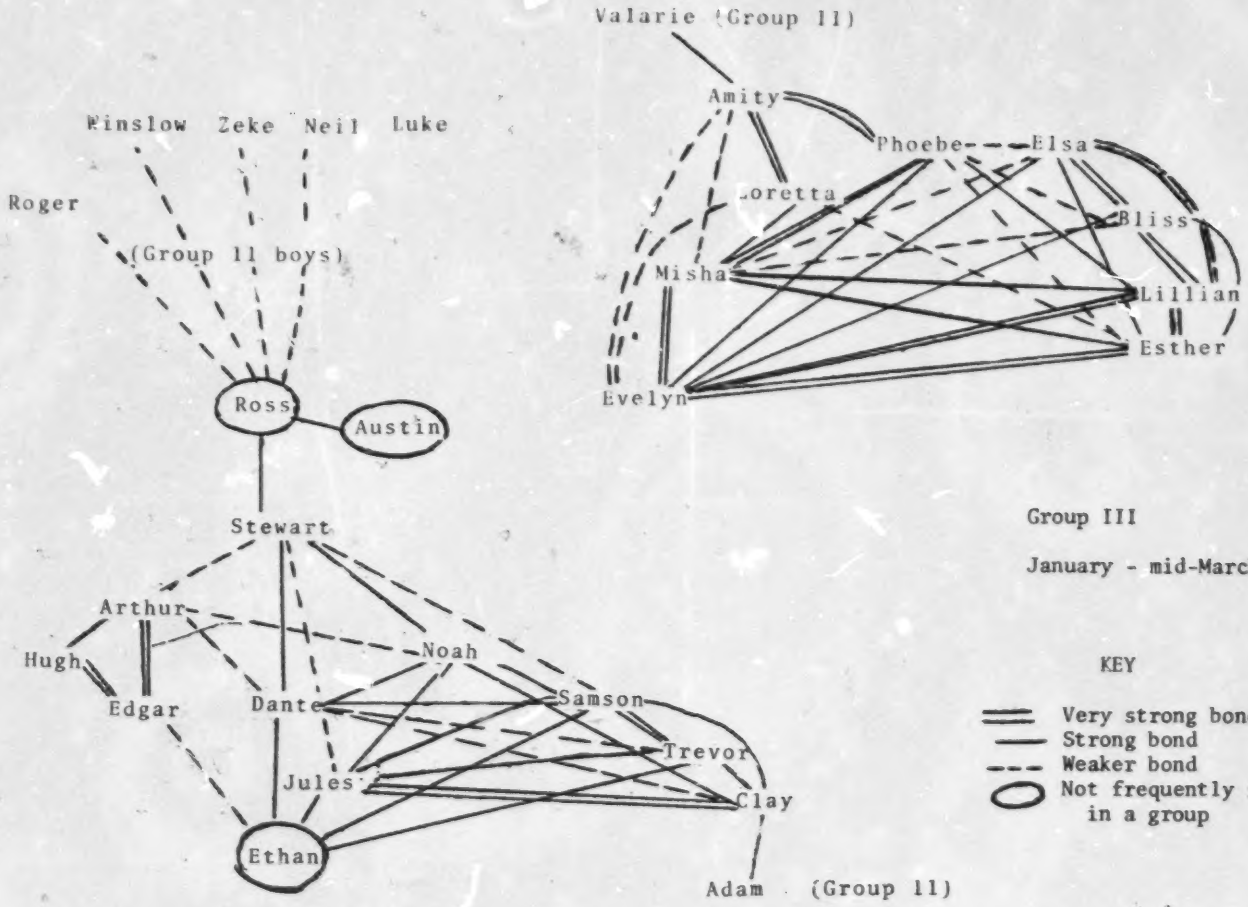
Level 3 in Observing the Setting: A Chart of the Movement of Children Engaged in Activities Illustrates Aspects of the Coherence of the Space (Pace and Relatedness)



Charts 4, 5, and 6 comprise level 4 in observing the setting: A chart of the durability (persistence and transformation)of children's relationship.

CHART 4





Group III

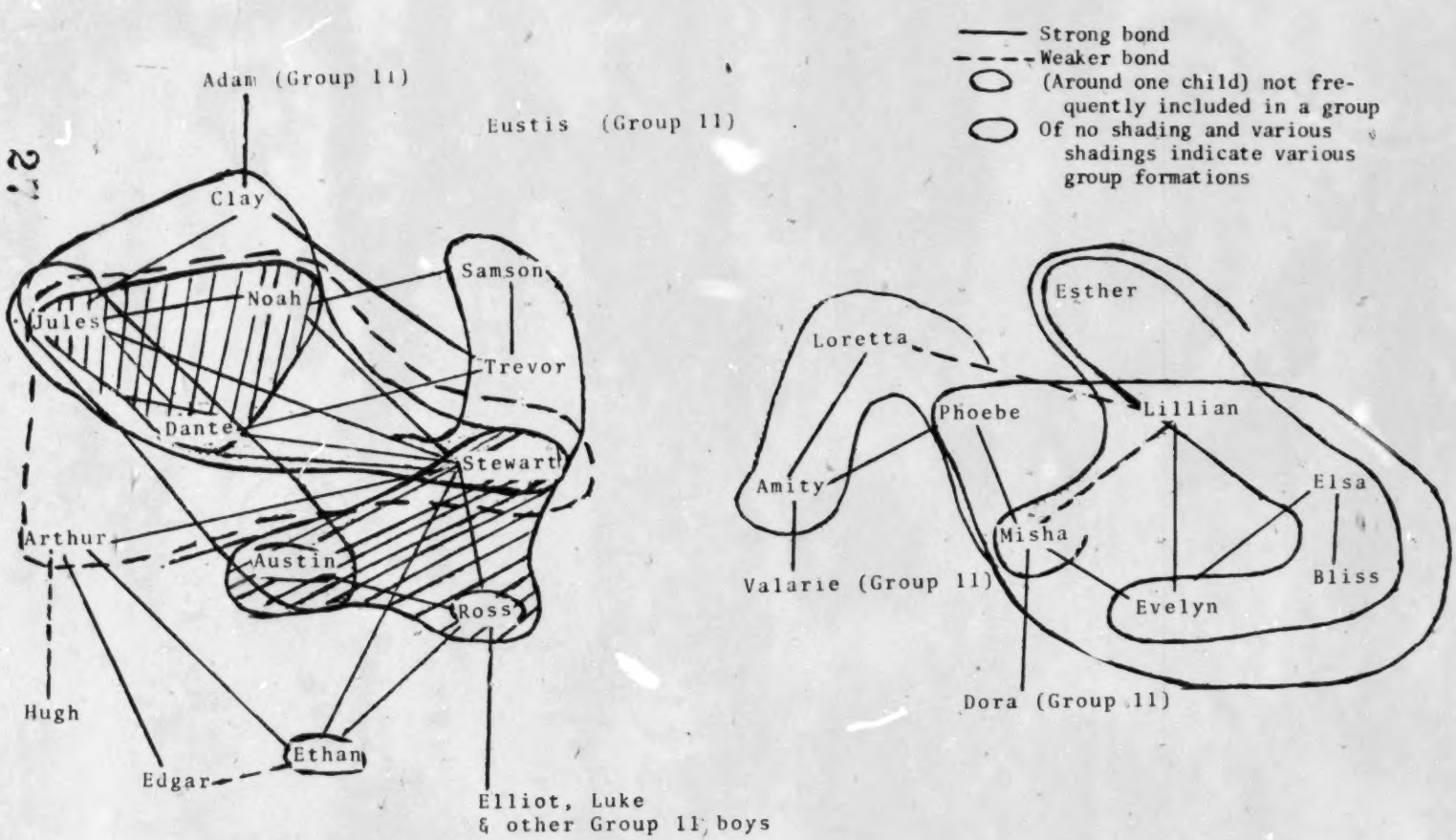
January - mid-March 1973

KEY

- Very strong bond
- Strong bond
- Weaker bond
- Not frequently included in a group

CHART 5

CHART 6



Group 111

mid-March - June 1973

(cont. from p.14)

At the first level of observation of the person, the observer describes the expression of his energy as movement through space and the intensity and pace of activity. At the second level of observation, the observer describes the direction and quality of the person's energy as that is expressed selectively towards the available phenomena within the setting. At the third level of observation, the observer describes the coherence of the body as that is expressed through gestural reciprocities; that is, for example, through the multiple ways in which body inclination is accented by the movement of the head, the multiple ways in which vocal inflection is reciprocated by eye and hand, etc. At the fourth level of observation of the person, the observer describes the durability, i.e. the persistence and transformation of the gestural reciprocities underlying the coherence of the body through variations of setting and through time. In concrete form, these levels of observation are presented in Charts 7-10.

It is of the utmost importance to grasp that while the levels outlined here reflect refinement and depth of observation, they are not 'steps' to be taken one after the other, nor does one level lead to the other, although each one requires the others. Neither are the levels intended to be exhaustive of all of the possible levels of meaning since by definition the potential meaning of a phenomenon is limited only by the limitations of point of view of the observer. As the observer engages in the inquiry, the phenomenon will yield its levels of meanings according to his capacity to *abide* with the phenomenon and so to intuit it.

Pasteur says "that in the fields of observation, chance favors the prepared mind." It is on that point that I will make the subtle transition from the observer's act of inquiring to the recording of that observation. The observer, increasingly immersed within his object of contemplation, is able to 'think' the phenomenon as the patterns of reciprocities that describe it are unconcealed. Thus, the meaning of the phenomenon, and of the setting as it is, is constituted within the thought of the observer and stated with ever greater complexity and elaboration. And that is the crux of the matter. The heart of phenomenological inquiry is thought, and the interplay of reflected thought through projected memory carries the observer ever further into the phenomenon--that is, as Heidegger phrased it, into "its multiplicity of meanings."

Recording.

The function, then, of recording--and in the instance of inquiries into the person, the function of the preservation of records of the person's meaning (such as writing or drawing)--is to intensify the inquirer's participation in the observed event, and thereby to inform his thought and meaning in two ways. First, within the moment of observing, recording provides a second level of engagement of the observer's body in the event through his hand's graphic representation of the event. And second, recording

or the preservation of the person's own records of meaning (drawings, writing, etc.) captures the event for the observer's reflection upon it through time.

As observing and recording are bound together within the experience of the observer--the one process informing the other--there can be no specific format for recording or for selecting records produced by the person. Rather the observer builds over time a repertoire of ways in which to represent and to select the event in as many of its dimensions as he is capable of grasping: graphic representations, words, movement notations, collections of drawings and writing, engaging the gestural property by 'representing' it in his own body. In practice, the recording repertoire builds as a function of the observer's increasing power to constitute the meaning of the event: if the observer does not grasp vocal inflection as critical to the meaning of a person's speech, he does not need a way to record it. If he does not understand the potentialies of drawing as an expressive medium that reveals the person's meaning, he does not need a format for selecting and preserving drawings.

Inasmuch as the observer is presumed to be constituent of the meaning of the observed event, the words or other representations he uses to describe the observed event cannot be predetermined to eliminate, for example, subjective or value representations. Rather, it is through the expressive power of his language and symbolizing that the observer reflects and states meaning, and thus enriches his thought. It is only required that the event be recorded in such a way that the *meaning* of his words and symbols are also increasingly revealed. That is, if the observer records a person's 'anger', it is also obligatory to describe the reciprocity of gestures that expressed that anger--and in the process to qualify and refine the original description in its relationship to the other expressions of the person. As the observer grows ever more immersed in the phenomenon observed, the power to articulate in words and other representations grows ever finer and more particular. And the words themselves take on new shadings of meaning so that in the example of 'anger' a complex of words specific to its particular expressions emerges to supplant the global concept of anger. As well as intensifying the observer's participation, then, recording and the preservations of records of the person's meaning provide the vehicle through which his own point of view is in the first place explicated, and in the second place broadened, deepened, and refined.

*The Organization of Observations: Documenting.**

As observing and recording inform each other, and levels of the phenomenon under inquiry reveal themselves, the organization of observation both to intensify the observer's participation and to state the multiple reciprocities underlying the integrity of the phenomenon becomes critical. That is, in the accrual of recorded observations and other records of phenomenal meaning over time, patterns of mean-

*See also Engel, B., *A Handbook on Documentation*, in this series.

(cont. on p.29)

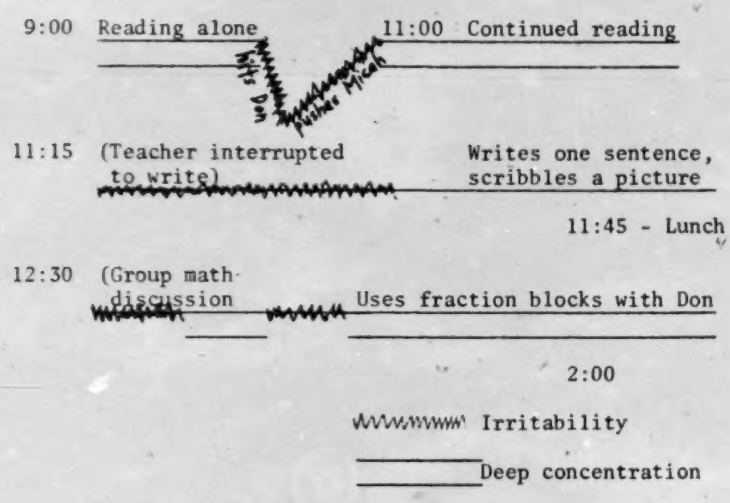
The following charts (7 through 10) are examples of levels of observations of the person.

CHART 7

Level 1 in Observing the Person: An Example of a Child's Expression of Energy

A Morning
Fall 1965

Jacob - 5:7-6:6



Today Jacob was absorbed from 8:45 until just before recess in reading a pre-primer. He sat at the far corner of the make-it table and only looked up a few times to shout "Hey, Mrs. Stroud, what's this." On finding, as he did twice, that the teacher was not in the room, he picked up the book, holding his finger to mark the word and walked over to Vanessa at the sewing table and asked "what's this?" He would repeat the word to himself as he returned to his chair. Except for these brief interruptions his absorption was total. About 9:40 his friend Don approached the make-it table and called to Jacob, "Hey, Jacob, wanna make something?" When Jacob did not answer Don set to work on a cardboard boat, whistling softly. About ten minutes later, Jacob suddenly hit Don over the head with the book, shouting "G'wan, ya're bothering me." Don, obviously taken by surprise, began to answer, but Jacob hit him hard on the shoulder. As the teacher intervened, Jacob was shouting furiously, "I don't care, he's botherin' me. Tell him not to bother me. Get him away."

Today, Mrs. Stroud tries to get Jacob to stop reading and join the group for discussion. Jacob ignored the first request made by the teacher as the others were clearing away. When she put her hand on his shoulder and urged that he "finish up because it's cleanup," he shrugged irritably and muttered "not finished yet." As the group assembled, the teacher said, "You must put up the book now, Jacob. We've finished cleanup and we are ready for recess." Jacob without looking up answered "In a minute. Can't ya see I'm not finished?" The teacher waited a moment and again said, "Jacob;" he reluctantly joined the group.

CHART 8

Level 2 in Observing the Person: An Example of the Direction of the Expression of Energy with the Setting

Jacob's Activities

Age 10

- Math
  - Mapping
  - Charts
  - Block structures
- Wood working
  - Paper sculpture, kites
- Science
  - Anatomy
  - Plant Growth
- Reading
  - Descriptive writing
  - Creative writing
- Sports
  - Creative movement
    - Music, composition, percussion
- Painting, drawing, clay

At age ten more energy is being realized in the world than at age five, and more of the energy is constructive and free flowing. However, the dominant and most difficult relationships remaining are in the realm of things and physical forces. As this is a boy of high intelligence, the outward manifestation of this expenditure of energy was in exceptional mathematical skills, physical prowess and coordination and grasp of physical relationships among objects such as

(cont.)

gravity, causation, time, etc., and of physical space. Very recently, the physical coordination and intimate knowledge of object characteristics has been given new expressive release in ways indicative of the development of the inner self, such as imaginative paintings and sculpture, and musical composition. All of these compositions are notable for their rhythm, balance, indeed, their natural geometry, and symmetry.

The intellectual quality of this child is stripped down and bare. He treats all things factually, concretely, and correctly. In his forceful way, he demands to know if he is *right*. Even in play, it is the rules of the game, the score, and the physical prowess that attract. The increased expressiveness demonstrated in the paintings has not been accompanied by fanciful or imaginative play. For a boy of such great intelligence his voice is uninflected and "young" sounding and his vocabulary is limited. There has been a noticeable softening of the face and matter in the ten months or so since he began to create paintings and compositions....

CHART 9

Level 3 in Observing the Person: An Illutration of Description of Gestural Reciprocities (Coherence)

Observer's Notes

Jacob, Age 5:7-6:6

Concentrated Hard body	Jacob is exceptionally intent and concentrated for such a young child. He also has a very hard body that makes him seem older than he is, although he is not particularly large for his age.
Little speech Lack of inflection in his voice	Jacob speaks little and sounds young when he does because of the lack of inflection.

Age 6:7-7:4

Physical tension Stiff arm Clenched jaw Explosive Speech	Jacob seems to be enclosed in a thicker and thicker shell. His physical tension is so great that his arm is stiff to the touch. His face is curiously old appearing--possibly because of his clenched jaw....He is always fully concentrated and only occasionally explodes into speech, "Didja see that? Betcha don't know how I did that, do ya."

Teacher's Notes

Jacob, Age 7:7-8:4

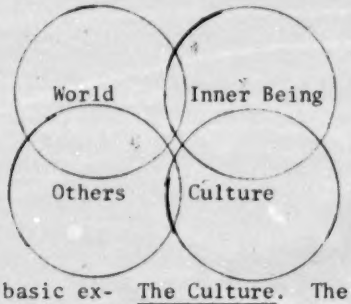
Moves body away Averts eyes	...Unless forced to answer a question, it is avoided both by not looking at me and by moving away.
Concentration on physical skill	Jacob is mostly alone on the playground. He shoots baskets well.
Concentration on physical skill Limp body Expressionless	A really disturbing playground occurence. Jacob walked up to Chris and using a judo hold "flipped" him so that he landed hard on his back. I was furious. I grabbed Jacob's hand and began really yelling at him as to why he had done such a thing. "To see if I could do it." His hand as I held it was limp and there was no expression of emotion....

CHART 10

Level 4 in Observing the Person: An Example of Description of the Persistence and Transformation (Durability) of the Person's Engagement in Multiple Levels of the Setting--World, Others, Inner Being, Culture.

The World. The inexhaustible bedrock of experience--the forces, vectors, and dynamics from which is constituted the world of objects. The mode of constitution originating in the body and its rhythms of nature.

Inner Being. The numinous realm of imagic relationship and the realms of "as if"--the seat of man's symbolizing power, the person as shaper and mover. Its mode of constitution originates in bodily activity but depends upon language for its growth.



The Others. The basic experiences of humanness and self. The fundamental interdependence of human beings--the mutual dynamics and identities from which is constituted the experience of others and self. The mode of constitution originating in the body and its dynamic relatedness to other persons through gesture.

The Culture. The institutional world; the realm of formalized relationships and of derived authority and morality--the self-evident world of accoutrements. The mode of constitution originating in language and in the relatedness of the parental figures.

The observer described Jacob in terms of the energy he expressed toward the realms of inner being, world, culture, and others, and presented this data as it was revealed over time.

(cont.)

Jacob at Age Five

Strong and positive flow of energy toward the *World;* concentrated, vigorous, purposive, physical, quick.

Moderate and negative flow of energy toward the *Culture;* destructive, disobedient.

Strong and negative flow of energy toward the *Other Persons;* impulsive, physical, erratic, destructive.

Minimal flow of energy toward the *Inner Being;* little expressive activity.

Jacob at Age Ten

Strong and positive flow of energy toward the *World;* concentrated, vigorous, purposive, physical, quick.

Minimal and negative flow of energy toward the *Culture;* occationally destructive and rebellious.

Minimal and negative flow of energy toward the *Other Persons;* forceful, physical, occasionally erratic.

Minimal and positive flow of energy toward the *Inner Being;* rhythmical and symmetrical expressions in music and painting.

Jacob at Age Thirteen

Strong and positive flow of energy toward the *World;* concentrated, vigorous, purposive, physical, quick.

Moderate negative/positive flow of energy toward the *Culture;* knowledgeable, manipulative, clever.

Moderate negative/positive flow of energy toward the *Other Persons;* impulsive, physical, forceful, sometimes gentle and generous.

Strong and positive flow of energy toward the *Inner Being;* concentrated, purposeful, expressive in art and music.

(cont. from p.22)

ing emerge both through the increasingly revealed complexity and interpenetration of the phenomena observed, and through the increasingly articulated thought of the observer. The process of selecting and juxtaposing recorded observations and other records of phenomenal meaning in order to reveal reciprocities and therefore to approach the integrity of a phenomenon, is called *documenting*.

Carrying through this process, whether applied to a single event (e.g. *a* child, or *a* process) or to a complex event (a total setting, or a group of persons), rests upon the documenter's grasp of the inexhaustible and ambiguous character of the phenomenon, and upon his grasp of meaning as emergent through the interpenetration of events, as a reciprocity in which each event is a moment. Thus, in the selection and juxtaposition of observations and records, the documenter is seeking not to *exhaust* the event but to approach it, to present it vividly, intensively, and to elaborate it through its reciprocity with other events. In contrast to a logical analysis in which the parts would be derived abstractly in their logical relationship to the whole, this process depends upon placing component observations and records in multiple relationship to each other and allowing the multiple patterns of relationship to coalesce. As with observing and recording, it is a process in which hand and body inform thought, rather than a process which is purely abstract and/or mentalistic. Equally, there is neither set *content* nor a set *presentation* of content that defines the documentary account. Instead, congruently with the assumption of multiplicity of meanings constituted mutually through the event and the point of view of the observer, each documentary account emerges through the interpretive thought of the documenter. His obligation is faithfully to balance the weight and import of each component relative to, and in reciprocity with, each other component in order to present a phenomenological meaning of the event, and not an abstraction or schematization of it. In method, it is therefore akin to historical analysis or to biography; and as in those enterprises, it deepens and broadens as a function of the documenter's immersion in the observations and records of the events.

It is a corollary to the process just described that observations or records as data are never exhausted, but rather grow more and more significant as they are juxtaposed with an ever-increasing accrual of observed events and records. Thus observations and records which were originally gathered and organized to reveal relationships in the thought and language of the young child can reveal another facet of meaning when incorporated with observations and records on the thought and language of older children, and display yet another facet of meaning when placed with other observations and records to describe the reading process. To take another example, observations and records which document a total school setting for a year can be reconsidered to describe the spontaneous interests and themes of children at given ages as these were

expressed within that setting. Or the documenting of the activities of five-to-eight-year olds in a particular school setting during a year can be reorganized to reveal both the underlying processes of thought that were engaged through these activities and the emergent curriculum.

From this increasing unconcealment of the reciprocities that describe the phenomenal events, a second level of documenting is achieved, which in turn provides the transition from documenting to descriptive research--thence to the constitution of a new unit of observational inquiry. Through the articulation of reciprocities, the meaning of the phenomenon emerges in terms that facilitate refinement of the point of view of the observer; i.e. the event becomes more available to thought.

In other words, *through time* the enduring reciprocities descriptive of the integrity of an event emerge in terms of their constant expression and transformations. Taken together, these patterns of reciprocities constitute matrices which approach the expression of the integrity of a phenomenon as it occurs through time. Thus, the documenting of given children, the documenting of the problem-solving process, and the documenting of the reading process over a six-to-nine-year period yielded the matrices of reciprocals shown in Charts 11-13.

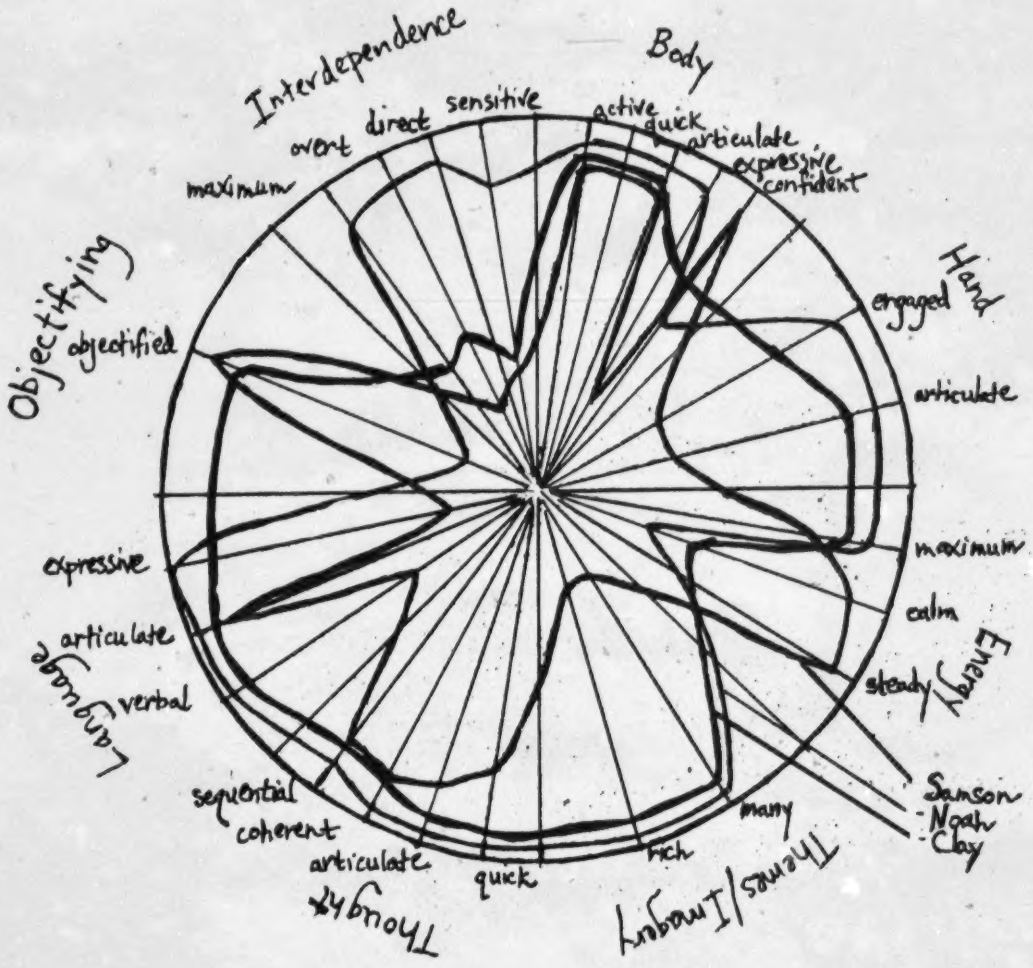
The process through which the matrices emerged in practice again involves the body and the hand. For example, using the materials illustrated in the charts, and given the totality of documentation on eight to 20 children over an extended period of time, the documenter returned to the original records and observations; in a process of juxtaposing that data quite literally through the hand--i.e. in re-copying them to form patterns--the commonalities, differences, nuances, and shadings of process as it was expressed through this data were articulated. Through this articulation, apparent reciprocal relationships among the data were formulated and, in turn, the data was recopied, until the form of the reciprocal relationships in graphic representation appeared. Chart 14 reflects this state in the evolution of a matrix.

The last stage in this documentary process, as it merges into descriptive research, is to formulate the provisional matrix so that it can be used by other documenters to plot the same and additional data for the purposes of refining the definition of the matrix and for determining the range of applicability of the matrix. Chart 15 reflects this final stage of the matrix.

In summary the two stages of the documenting process are 1) the selection and juxtaposition of observations and records to reveal a multiplicity of meanings (integrities) and unities emergent from that data, and 2) the use of these accounts, in turn, to yield matrices descriptive of the reciprocal bonds that approach in their formulation the integrity of an event and thus encompass the original data. In this way, the phenomenon--be it person, process, or setting--is revealed to thought in ever-increasing complexity, and thus the original inquiry is re-focused towards new levels of meaning.

CHART 11

Documentation of the Coherence and Durability of Relationships: Illustration of Complementarity and Divergence of Gesture Among Three Boys (Initial Matrix in a Projected Series of 24)



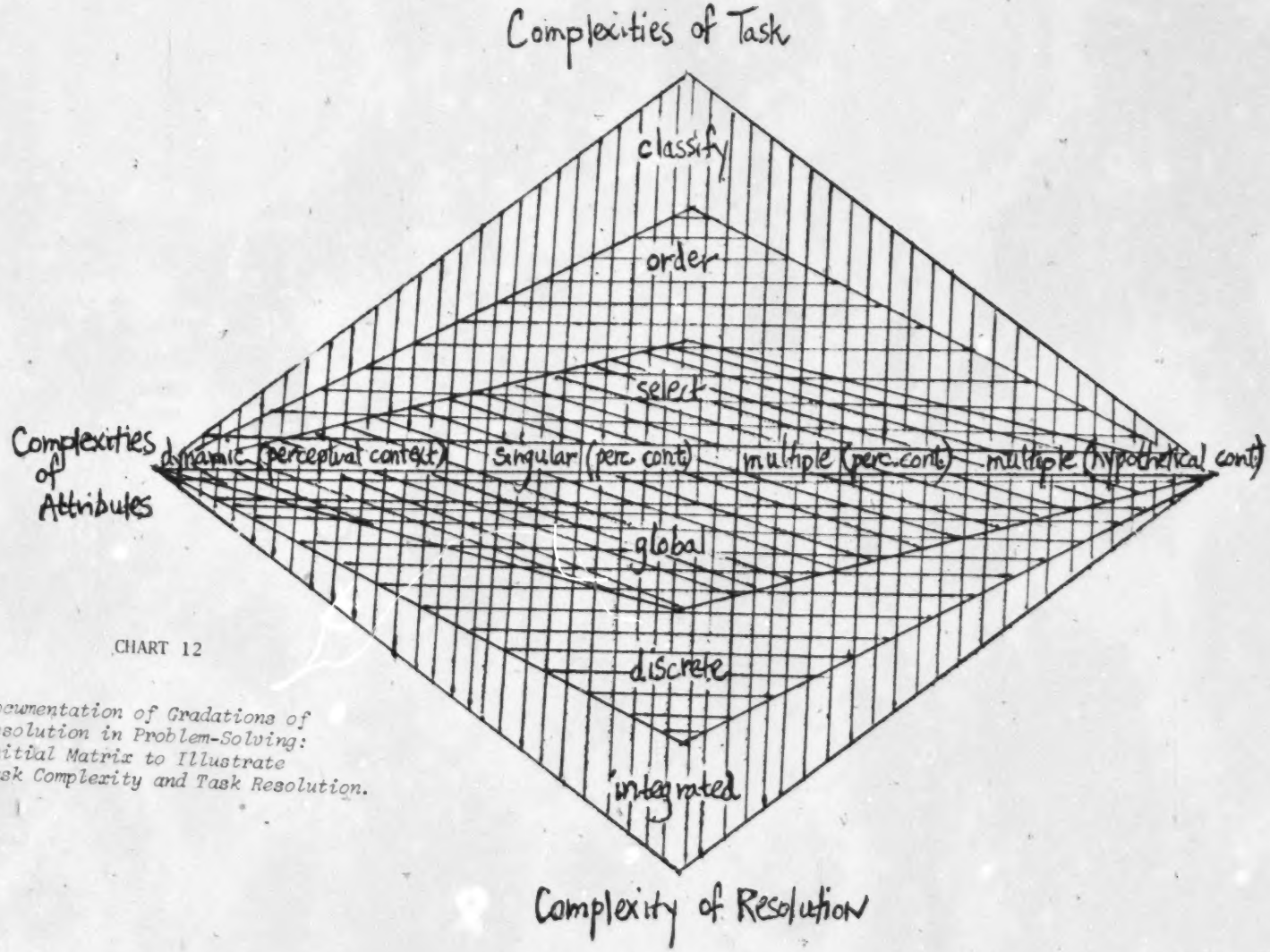


CHART 12

Documentation of Gradations of Resolution in Problem-Solving: Initial Matrix to Illustrate Task Complexity and Task Resolution.

CHART 13

Documentation of the Dimensions of the Reading Process: Initial Matrix Based on Intensive Observation and Study of Two Children.

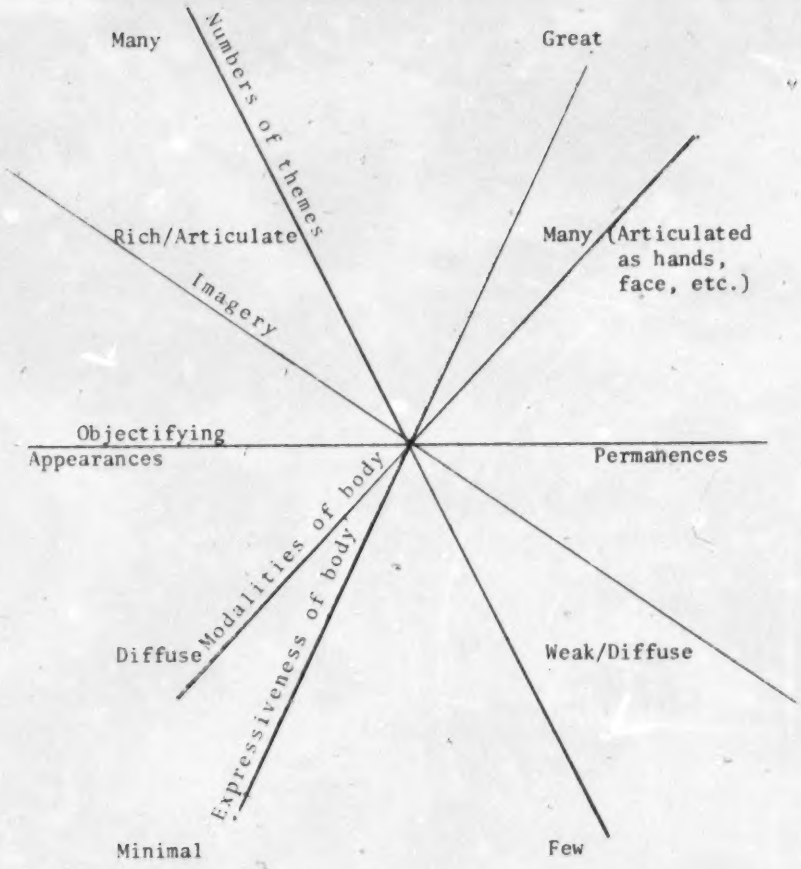


CHART 14

Documentation of the Dimensions of the Reading Process: Reciprocal Relationships Among the Dimensions.

Provisional Matrix for Describing the Reading Process

Objectifying

appearances _____ permanence

Imagery

weak/diffuse _____ rich/articulate

Body

minimal expressiveness _____ maximal expressiveness

Modalities of Expression

diffuse _____ articulate

Spatiality

diffuse/weak _____ articulate/coherent

Spoken Language

minimal expressiveness _____ maximal expressiveness

Modalities of Expression

diffuse _____ articulate

Coherence

minimal _____ maximal/strongly sequenced

Visual Organization

weak _____ strong

Analytic Visual Correspondence

weak _____ strong

Auditory Organization

weak _____ strong

Analytic Sound Correspondence

weak _____ strong

Inner Outer Expression

minimal _____ maximal

Energy

minimal _____ maximal

Release of Energy

explosive _____ even

(Trust) Interdependence/Peers

minimal _____ maximal

(Trust) Interdependence/Adults

minimal _____ maximal

CHART 15

Documentation of the Dimensions of the Reading Process: Revised Matrix (Two Children Plotted)

Revised Matrix for Describing the Reading Process

Reciprocities Related to the Decoding Process

Objectifying

Appearances _____ / / _____ Permanences
E J

Body

Coherence/Spatial diffuse _____ / / _____ Coherence/Spatial articulate
E J

Spoken Language

Minimal coherence/ _____ / _____ / _____ Maximal coherence/ sequence
J E

Visual Organization

Weak _____ / _____ Strong
E
J

Analytic Visual Organization

Weak _____ / _____ Strong
E
J

Auditory Organization

Weak _____ / / _____ Strong
J E

Analytic Sound Correspondence

Weak / _____ / _____ Strong
J

(cont.)

Reciprocities Related to Fluency and Responsiveness in Reading

Imagery

Weak/Diffuse ___/___J___/___E___ Rich/Articulate

Few Themes ___/___J___/___E___ Many Themes

Body

Minimal Expressiveness ___/___J___/___E___ Maximal Expressiveness

Modalities of Expression Diffuse ___/___J___/___E___ Modalities of Expression Articulate

Spoken Language

Minimal Expressiveness ___/___J___/___E___ Maximal Expressiveness

Diffuse Expressiveness ___/___J___/___E___ Articulate Expressiveness

Inner Outer Expressiveness

Minimal ___/___J___/___E___ Maximal

Reciprocities to be Examined for Their Relationship to the Reading Process

Energy

Minimal ___/___J___/___E___ Maximal

Release of Energy

Explosive ___/___J___/___E___ Even

Reciprocities to be Examined for Their Relationship to the Reading Process

(Trust) Interdependence/Peers

Minimal ___/___J___/___E___ Maximal

(Trust) Interdependence/Adults

Minimal ___/___J___/___E___ Maximal

CHART 16

Descriptive Research: Provisional Scale of Problem-Solving Tasks presents the Reciprocities of Task, Task Demand, and Level of Resolution.

Matrix for Classification of Animals

Level of Task	Description of Task	Mode of Analysis
Multiple defining perceptual attributes	Many pictured animals, including insects, cats, deer, elephants, gorilla, rhino, blue whale Instruction 1: Group the animals that are alike Function: To determine the basis for forming a class. Population: 85 children, aged 5-13	1. Global, ground characteristics Example: tracing a space outlined by the animals' legs 2. Global, figure characteristics Example: Outlining the back of the elephant and the back of the whale 3. Discrete, figure characteristics a. temporary attributes Example: orientation b. integral attributes Example: a head, color, legs, etc. c. defining attributes Example: wings 4. Discrete, defining figure attributes, additive Example: size and a water animal 5. Integrated a. Inclusive (proto-concept) Insects and other non-defining attributes b. Inclusive and exclusive Insects and no other animals; defining attributes

CHART 17

Descriptive Research: Matrix of Tasks for Studying One Dimension of Reading (Decoding)

Reading Research

Suggested tasks for describing an aspect of the reading process. Initial population for study: two (2) extreme children.

Task

Defined

Activity of Person Self-structured	Activity of Person Analytic
Draw designs Original Magna-Stix figure Making mazes & puzzles Original block patterns	Morse code Bender Gestalt Symbol-coding; number coding Magna-Stix Block design Visual Correspondence: puzzles; design paper Mazes Missing objects - geometic Missing objects - meaningful Color blindness test New York Times caricature
Building with table blocks Draw-a-person Draw-a-tree Sand tray - leaves/ pebbles	Gottschalt Street Gestalt Rorschach

Task

Ambiguous

3

Descriptive Research

The pivotal point in the phenomenological methodology is the refinement of observation achieved through the descriptive matrices, which by virtue of their formulation, overpower and constrain phenomenal meaning even as they deepen insight into it. Thus it is this refinement itself within the memory and thought of the inquirer that must bear the burden in constituting new phenomenal realms of inquiry, which in turn will transform earlier formulations and definitions--and so complete one cycle of time and thought. Even as the matrices are employed to guide observation and to refine it, observation must also be directed to all of the expressions of meaning that fall outside the matrix, not in order to broaden that particular matrix for their inclusion, but to open up new dimensions of meaning. Thus it was in the use of the refined matrix for problem-solving and concept-formation described previously, within a laboratory setting, that observations occurred which 1) indicated the reciprocity of thought and body, 2) redirected observation and thought to the expressions of that thought and its unification through language, and 3) directed observation and thought to the relationship of thought and play as they are reciprocal expressions of the unity of the body. In other words, observations elicited within the limiting confines of the problem-solving and concept-formation matrix constituted new realms of inquiry: the transforming reciprocity of thought and body, which in turn illuminated new meanings of language (as the unification of thought and body), and the reciprocity of play and thought, which revealed new meanings of the body (as the unification of thought and play).

Keeping uppermost in thought, then, the potential threat to meaning constituted by the refinement of observation, and the obligation to guard that refinement in the ways just described, I can proceed to the relatively minor shift that is accomplished in the transition from documenting to descriptive research. Basically descriptive research differs from documenting in that it returns to direct observation, but now within a delimited setting, the limits of which are determined by the matrices derived from the documentation process. That is, the matrices of reciprocities derived from the observations of the person or phenomenon in a natural setting are subjected now to verification within a setting that is speci-

fically arranged to reveal their limitations and their applicability.

For example, in the instance of the problem-solving and concept-formation--given the notion that task complexity is expressed through the availability of factors and the number of factors to be resolved and that these are reciprocated at different ages by different processes of resolution--the setting was limited to present different children of varied ages, and the same child at different ages, with tasks of varying complexity and to record their resolutions of the problems.

In the instance of the reading matrix--given the notion that imagery and its organization through the body is contraposed to objectifying and to the capacity for analytic organization which underlies it (in their respective relationships to fluent, responsive reading as the decoding of words)--the setting is limited in two ways: through tasks and through participants. The double limitation indicates that this research is at an earlier stage of investigation than the inquiry into problem-solving and concepts. That is, in this instance, the setting is limited through the use of tasks of relative structure and ambiguity, which can be resolved in multiple ways or only in specified, analytic ways, and also through the participation in these tasks of children selected because they are either extreme in terms of decoding skill, or in terms of fluency of reading, or both.

The relative stages of evolution represented by the two research inquiries are reflected in the way they are formulated. In the instance of the problem-solving and concept-formation, tasks and resolutions form a provisional scale which inter-relates tasks and relates tasks to resolution (Chart 16). The reading research,on the other hand, is still globally defined by specific reciprocities as yet related to each other only implicitly and ambiguously, and unspecified in terms of resolution (Chart 17). However, as each of the inquiries is carried forward through revisions of the setting, application through time, and the participation of persons at different ages, the original matrices reflected through them will be defined, modified, and increasingly guarded.

In a most fundamental sense, there can of course be no final resolution or explanation of a phenomenon through descriptive research. That is not its function. Rather, its function--as already indicated--is to verify the extent and limits of the currently available meanings of a phenomenon and to share those meanings in thinkable form with other inquirers, who in turn will further illuminate the extent and limits of the phenomenal meaning of the event through their observations.

In summary, this method of inquiry--taken in its totality--requires that the inquirer *abide* with the object of inquiry, that he immerse himself in it, that it compel his thought, that he accept its ambiguous and complex nature, and therewith, the limitations of his own point of view i approaching the phenomenon in its integrity, how-

ever faithfully he unconceals its meanings. To the degree that he accepts these demands, to that extent will he be rewarded by not 'useful' knowledge nor answers nor solutions but by increased meaning--his own and that of the phenomenon in which he has placed his thought. And as "it is by means of memory that man makes the outward appearances an inward reality," that increased meaning as it is embodied in memory will in turn yield not explanatory systems nor systems of classification but the imaginative insight that creates new totalities for inquiry --whether it is a physical cosmos (Newton), the interior hidden cosmos of the psyche (Freud), or the cosmos of symbology (Jung).

It is also true, *although not of necessity*, that the accrued phenomenal observations and descriptions can be used as the basis for formulating in thought a theory or science, which will then, within a stated frame of reference, provide a systematization of knowledge. I say not of necessity because meaning accrued in reflection and thought is itself a statement of the special relationship that abides between man and nature, which we know as knowledge. And that knowledge is shareable and generalizable through the inherent *order* of phenomenal meaning, that is, through the reciprocities that express its coherence, durability and integrity. As the Tao succinctly states: "Where Meaning prevails, Order results."

Whatever the stance taken on the universal applicability of scientific formulation to all phenomena, a fundamental problem remains. Wherever logical inquiry is devoid of the scientific reference from which to derive its meaning, another approach is needed, especially to complex and living phenomena, to describe the phenomenon and to inform thought and action.

It is important to turn now to the underlying philosophical orientation of phenomenological inquiry, and the meaning of that orientation for education.

4

The Importance of a Philosophic Outlook

Adherence to logical models, and to the essentially reduced statement of the phenomenon which they reflect, is an attitude before it is a method. Equally, adherence to phenomenal meaning and to the fully elaborated statement of the phenomenon which it reflects, is also an attitude before it is a method. And attitudes are not without substance: they reflect belief and therefore shape thought. Or as Whitehead expresses it:

> Apart from detail, and apart from system, a philosophic outlook is the very foundation of thought and of life. The sort of ideas we attend to, and the sort of ideas which we push into the negligible background, govern our hopes, our fears, our control of behavior. *As we think, we live.* This is why the assemblage of philosophic ideas is more than a specialist study. It moulds our type of civilization (1958, p. 87). (Italics added)

In order to discuss the far-reading implications of this statement for school reform--not only as a function of methodological articulation, but also as it reflects a formative philosophical outlook--the next portion of the discussion will be devoted to an extrapolation of the ideas integral to that outlook taken from my earlier discussion of the character of the observer, the nature of the phenomenon, and the relationship of the observer to the phenomenon.

Just as the notion of the character of the observer depends upon an idea of the person, so the nature of the phenomenon depends upon an idea of the world. Thus, where earlier I undertook a comparison of method through the 'observer' and 'the phenomenon', I will now undertake a comparison of outlook through the 'person' and 'the world'. I will compare these ideas with those integral to a logical-technological (scientific) outlook. Following that discussion, the implication of the two outlooks will be drawn for education and a philosophy of educational reform.

The character of the person, the world, and knowledge within the logical-technological outlook.

It is reflective of the nebulous and at the same

time object-like character of the person, as it is construed within the logical outlook, that Western man has no philosophy of the person, but only of his personality, actions, attitudes, thoughts, beliefs, behaviors--i.e. of the systems presumed to comprise "person," or alternatively, of Man, which is the generic conceptualization of "person." The person as constituting or expressing a personal perspective is substantiated as a function of the very power of abstraction in which predication, analysis, and classification resides: a person is not *a* person, *this* person, but a scientist, or a forty-five year old housewife, or an alcoholic, or a millionaire. And, thus it follows that any person is, in effect, defined as the sum of his classificatory memberships--father, scientist, middle-class, teacher, husband--and it is assumed that his memberships, stated exhaustively, determine (cause) his point of view. Thus any given person represents not his own point of view, but that of a class of Persons.

Within this framework there also exists a World anterior to the Person, a World which constitutes an ultimate reality with which the Person must 'interact' and to which he must, therefore, 'adjust' in order 'to survive'. The reality of this World is 'knowable' to Persons through their abstraction of it in terms of categories and classificatory system, just as the Person is knowable to himself, or as others are knowable to him, by their class membership. However, the categories and classifications of the World and of Persons as a function of his own activity in organizing it are ambiguous at best within this philosophic orientation.

Given the nebulous and general character of the Person, it is as if, as Elkind observes, "once a concept is constructed it is immediately externalized so that it appears to the subject as a perceptually given property of the object and independent of the subject's own activity" (1967, p. xii). Paradoxically, within this point of view, not only is the object world as solid as Gibraltor in the reality attained through its abstraction, but the person is reduced to being only a 'subject'. As was shown previously, the Person gains the power to control and to predict the phenomenal world through his classifications and categories. Knowledge--the ultimate statement of the person's relationship to the world--becomes technology or "that which enables us to make nature do our bidding"(Barfield, 1957, p. 56). In extreme form, the relationship here can be stated as a depersonalized aggregate (Persons) on the one side, and a solid world of objects and forces on the other (Environment) in which one side of the relationship is a controlling power and the other, a mighty and alien force.

This brings the discussion back to the character of the person who, constrained by this perspective, is in effect, then, a mental process, cut off from his grasp of the world *except* as it appears through categories, and equally cut off from his own activity through which categories were formed in the first instance. As Schachtel

observes, the danger to the person construed in this way is that:

> The perspective from which objects are perceived may narrow to 'what they are for' and 'how one deals with them'...In our time this stagnation (of perception) tends to take the form of an alienation of man from the objects and from his own sensory capacities. The danger of this alienation is that man's dulled senses may no longer encounter the objects themselves but only what he expects and already knows about them, the labels formed by his society.... Everything has its label and if one does not know it the experts will tell him (1959, p. 238).

The character of the person, the world and knowledge in the phenomenological outlook.

By contrast, the person within the phenomenological outlook, is notable by the particularity of his highly personal meaning. As such, he is construed as a unique point of view (person as contrasted with Person) in the wresting forth and expression of meaning through his body and his body's 'correlatives' in the phenomenal world. And it is through his thought, not as abstract mental process, but as contained within his body and his memory, that he states and restates his being in its integrity. Froebel says that:

> ...*every human being has indeed but one thought peculiarly and predominantly his own*, the fundamental thought, as it were, of his whole being, the key-note of his life symphony, a thought which he simply seeks to express and render clear with the help of a thousand other thoughts, with the help of all he does (1899, p. 142).

Thus, here the person is continually stating and transforming his point of view (his thought), and it is within the reciprocities of his thought so expressed that his integrity as a person can be approached. Approached but not known, as it is the fundamental character of the person within this formulation to be ambiguous, as well as durable and coherent. Merleau-Ponty characterizes the person, in his integrity and ambiguity as:

> ...a field, an experience. One day once and for all, something was set in motion which, even during sleep, can no longer cease to see or not to see, to feel or not to feel, to suffer or be happy, to think or rest from thinking, in a word to have it out with the world. There then arose, not a new set of sensations or states of consciousness, not even a new monad, or a new perspective, since I am not tied to any one perspective but can change my point of view being under compulsion only in that I must always have one...let us say, therefore, that there arose a

> fresh *possibility of situations*. The event of my birth has not passed completely away, it has not fallen into nothingness in the way that an event of the objective world does, for it committed a whole future, not as a causé determines its effect, but as a situation once created inevitably leads on to some outcome. Therefore there was henceforth a new 'setting', the world received a fresh layer of meaning. In the home into which a child is born, all objects change their significance; they begin to await some as yet indeterminate treatment at his hands; another and different person is there, a new personal history, short or long, has just been initiated, another account has been opened (1962, p. 406).

In that statement lies the seminal notion within the phenomenological outlook of the person's relationship to the world and the character of the world itself: the world is the bedrock of experience through which the meaning of the person is expressed. Thus, a world of phenomenal meanings is constituted--a perceptual universe in which the fundamental unity of person and world underlies and is generative of all of the derived reciprocities of that unity: inner-outer, subject-object, spirit-matter. Thus, far from being conceived as separate from the world, the person from this view takes his being within the world, and within the world he increasingly states and transforms his own thought as he also states and transforms the meanings of the world. As Rilke says: "We have no reason to mistrust our world, for it is not against us. Has it terrors, they are our terrors; has it abysses, those abysses belong to us" (1954, p. 69).

In his knowledge of the world, of the other person, and of himself, the person is here construed as constituent of meaning, and therefore he is thrust *into* the world, *into* other persons, and *into* himself as each reveals each other's meaning, not exhaustively, not completely, nor perfectly, but in the fullness of their ambiguity. In this way knowledge becomes the multiplicity of meanings, in which the person's thought abides and where, in memory and recollectedness, his thought converges to continually state those meanings in their changing reciprocities, and thus to cast them forward in imagination. In extreme form the relationship here could be stated as interpenetration of the animate 'setting'--the animate person and the animate world--in which the character of relationship is of necessity interdependence, lest the meaning of each be lost.

In this outlook, the person, then, is pre-eminently an enduring perspective, a unique perspective, albeit a transforming perspective through which, as Merleau-Ponty stated it, "the world gains a fresh layer of meaning." The threat to the person within this orientation is loss of meaning--the loss of the phenomenal world to an abstraction of it, and the loss of his own perspective to a collective categorization of it.

5

Reform and Change in Education: Implications of the Logical-Technological and the Phenomenological Orientations

On the one hand, if the person is conceived as the aggregate person, whose point of view is determined by his class memberships, and if knowledge is the classification and categorization of information as that classification is determined by the "current character of importance," that is by the standards held in a particular point in time, then the educative function is to initiate persons according to their classificatory memberships (age, sex, skill, intelligence, etc.) into the categories of knowledge appropriate to their memberships. Education, when thus conceived, is conservative at two levels: it conserves the person to the *perfection* of the 'fit' of his point of view to the memberships that define him; and it conserves knowledge to the *perfection* of the classification of information. Schachtel describes this conservative orientation to education, citing Hebb's characterization in Hebb's work, *The Mammal and His Environment*: "As Hebb puts it...the well-adjusted adult lives in the protective cocoon of his culture and within this cocoon, he is 'well-adjusted', i.e. relatively unemotional. In line with this, Hebb sees as the goal of moral education, the production of an individual that will 1) be stable in the existing social environment, and 2) contribute to its protective uniformity" (1959, p. 185).

On the other hand, if the person is considered to be a highly particular and significant point of view, whose thought is the expression of a unique meaning, and if knowledge is considered to be the multiplicity of meanings of the phenomenal world as these are constituted through the unity that encompasses man and nature, then the educative function is to create for each person that "inter-connectedness of experience" (Dewey), that "union of inner and outer" (Froebel) that constitutes thought. Education conceived in these terms is radical because it is conceived as *changing*; changing both as a function of the person's point of view and as a function of new realms of phenomenal meaning revealed and unconcealed through those transforming and multiple points of view. Froebel characterizes this outlook on education when he says:

> for the purpose of teaching and instruction is to bring ever more *out* of man rather than to put more *into* him; for that which can get *into* man we already know and possess as the property of mankind. On the

other hand, what yet is to come *out* of mankind, what human nature is yet to develop, that we do not yet know.... (1899, p. 279).

THE MEANING OF REFORM IN EDUCATION WITHIN THE LOGICAL TECHNOLOGICAL ORIENTATION

The function of reform within the logical-technological orientation to education is to perfect the educative functions of instruction and knowledge and, by derivation, to perfect the school as the institutional form that encompasses the two. The notion of 'perfecting', related as it obviously is to Social Darwinism and to the idea of Progress, accepts the basic assumptions underlying current notions of instruction, knowledge, and the schools as correct and unchanging. Reform becomes, in these terms, adjustments--adjustments designed 'to make things work better'; to make knowledge more available to the learner; to 'update' the knowledge purveyed; to make the school itself a more efficient 'producer' of learning.

This notion of reform as the 'manipulation of parts' is consistent with the Model approach to reform with its abstraction and isolation of process and its consequent dependence on specialists and experts. It is also congruent with the reality of a society which conceives itself to be mobile--physically, socially, and psychologically--and therefore must depend upon the uniformity of relationships and the uniformity of institutions, i.e. the formalized expressions of these relationships, in order to maintain stability through interchangeability, in circumstances which appear (from the personal point of view) to be highly ambiguous and fluctuating.

THE MEANING OF REFORM IN EDUCATION WITHIN THE PHENOMENOLOGICAL ORIENTATION

Within the phenomenological orientation, to speak of 'reform' is inappropriate, since change is basic to that outlook. The *source* of the school's capacity to change resides within the formative points of view of the persons--practitioners and students--who constitute it as a 'setting', and thereby constitute its meaning. The essential nature of change within this orientation is transformation: transformation through the changing expressions of meaning of the persons who constitute the setting and through their reflection upon the setting as it reveals their points of view.

Thus, the capacity of the school to be responsive to the interests of the persons for whom it exists depends not upon 'improving' or 'perfecting' instruction, knowledge, or hierarchies of membership, but upon a radical process of reflection which reveals the reciprocity of structures through which the coherence and durability of the setting is maintained. Through that knowledge, and in

the light of it, the structures of the setting are shaped and reshaped to maintain its responsiveness to persons. Within this orientation the school should be examined at any given point of time, not according to its 'perfection' or 'efficiency', but according to its *vitality*, as that vitality is revealed in the transformative potential of its structures (i.e. in their relative availability to reflection), and in the plasticity of the setting (i.e. its relative availability in terms of things and persons for the expression of meaning).

Thus change, or re-forming, is *gradual* because personal transformation through its reciprocity with the continuity of experience is slow, and because the reflective process depends upon the convergence of thought through time. Equally, change is *internal* to the setting because it depends upon the thought and reflection of the persons who constitute its meaning. Finally, change is *continual* because at root the phenomenological outlook is a rejection of linear time and of "perfectibility;" the continual transformation of meaning and of the expression of meaning through the setting is at the heart of the position.

The phenomenological orientation, whether as philosophic outlook or method of inquiry, cannot be formulated in models, nor can it insure uniformity, 'product', or efficiency. It seeks responsibility and articulatedness in carrying through a process of reflection, and it seeks responsiveness in constituting personal settings--settings in which the points of view and thought of persons are extended and deepened.

It is the articulation of the reflective process, and the articulation of a method of inquiry appropriate to that process, that is needed so that institutions committed to the person can be increasingly responsive in that commitment, and also responsible to the larger community.

Bibliography

Barfield, Owen, *Romanticism Comes of Age*. Middletown, Conn.: Wesleyan University Press, 1966.

_____. *Saving the Appearances: A Study in Idolatry*. New York: Harcourt, Brace, & World, 1957.

Bereiter, C., & Engelmann, S., *Teaching Disadvantaged Children in the Pre-School*. Englewood Cliffs, N.J.: Prentice-Hall, 1966.

Carini, Louis, "The Aristotelian Basis of Hull's Behavior Theory," *Journal of the History of the Behavioral Sciences*, Vol. IV, No. 2; 109-118; April, 1968.

Feldstein, Leonard, "Reflections on the Ontology of the Person," *International Philosophical Quarterly*. New York: Fordham University, 1970.

Frank, Phillip, *Philosophy of Science: The Link between Science and Philosophy*. Englewood Cliffs, N.J.: Prentice-Hall, 1957.

Froebel, F., *The Education of Man*. New York: Appleton, 1899.

Heidegger, Martin, *What Is Called Thinking?* New York: Harper & Row, 1968.

Jung, C.G.. *Memories, Dreams, Reflections*. New York: Pantheon Books, 1963.

Merleau-Ponty, M., *Phenomenology of Perception*. London: Routledge & Kegan Paul, 1962.

Rilke, R.M., *Letters to a Young Poet*. New York: Norton Co., 1954.

Schachtel, E., *Metamorphosis*. New York: Basic Books, Inc., 1959.

Werner, Heinz, *Comparative Psychology of Mental Development*. Chicago: Follet, 1948.

Whitehead, A.N., *Modes of Thought*. New York: Capricorn Books, 1958.

Also available as part of the North Dakota Study Group on Evaluation series:

Alternative Evaluation Research Paradigm
Michael Quinn Patton

An Open Education Perspective on Evaluation
George E. Hein

A Handbook on Documentation
Brenda Engel

Deepening the Questions About Change: Developing the Open Corridor Advisory
Lillian Weber

The Teacher Curriculum Work Center: A Descriptive Study
Sharon Feiman

Single copies $2, from Vito Perrone, CTL
U. of North Dakota, Grand Forks, N.D. 58201